



National Transportation Safety Board Aviation Accident Final Report

Location:	Denver, CO	Accident Number:	GAA19CA045
Date & Time:	10/27/2018, 1200 MDT	Registration:	N4500W
Aircraft:	Piper PA18	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The pilot under instruction in the tailwheel-equipped airplane with 26-inch bush wheels reported that, during the approach, he saw indications of a headwind. He added that, when the airplane touched down on the main wheels, he noticed that the windsock had shifted and was indicating a direct left crosswind. Just before the tailwheel touched down, the left wing lifted, and he slowly added power to abort the landing. However, the airplane veered left, the right main landing gear collapsed, and the right wing struck the ground. The airplane exited the left side of the runway.

The airplane sustained substantial damage to the right wing and the elevator.

The airport's automated surface observing system reported that, about the time of the accident, the wind was from 280° at 25 knots, gusting to 30 knots.

The pilot reported that there were no mechanical malfunctions or failures 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 pilot's failure to maintain directional control of the airplane during landing in gusting wind conditions.

Findings

Aircraft	Directional control - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Student pilot (Cause)
Environmental issues	Gusts - Effect on operation (Cause)

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event) Landing gear collapse Collision with terr/obj (non-CFIT) Runway excursion
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Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	27, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last FAA Medical Exam:	03/21/2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	02/24/2019
Flight Time:	(Estimated) 390 hours (Total, all aircraft), 25 hours (Total, this make and model), 290 hours (Pilot In Command, all aircraft)		

Flight Instructor Information

Certificate:	Airline Transport; Flight Instructor	Age:	28, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	12/04/2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	02/28/2019
Flight Time:	(Estimated) 1527.6 hours (Total, all aircraft), 2.2 hours (Total, this make and model), 1492.1 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4500W
Model/Series:	PA18 150	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	18-8009019
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	02/15/2019, Annual	Certified Max Gross Wt.:	1750 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3725.61 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	O-320-B2B
Registered Owner:	On file	Rated Power:	160 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KAPA, 5883 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1900 UTC	Direction from Accident Site:	90°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	25 knots / 30 knots	Turbulence Type Forecast/Actual:	Terrain-Induced /
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.08 inches Hg	Temperature/Dew Point:	18° C / 0° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Denver, CO (APA)	Type of Flight Plan Filed:	None
Destination:	Denver, CO (APA)	Type of Clearance:	VFR
Departure Time:	1000 MDT	Type of Airspace:	Class D

Airport Information

Airport:	Centennial (APA)	Runway Surface Type:	Asphalt
Airport Elevation:	5885 ft	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	4800 ft / 75 ft	VFR Approach/Landing:	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.570000, -104.849444 (est)

Administrative Information

Investigator In Charge (IIC):	Michael A Hicks	Report Date:	09/26/2019
Additional Participating Persons:	Leroy Sutton; FAA; Denver, CO		
Publish Date:	09/26/2019		
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=98583		

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