



National Transportation Safety Board Aviation Accident Final Report

Location:	Cottonwood, AZ	Accident Number:	GAA19CA511
Date & Time:	08/25/2019, 1120 PDT	Registration:	N8619W
Aircraft:	PIPER PA28	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The flight instructor reported that, during a soft-field takeoff with the student pilot at the flight controls, the airplane was in ground effect and yawed left with a high angle of attack. He added that, as the student was correcting, a wind gust from the right caused the airplane to drift left and put the airplane into a "cross controlled situation." The instructor attempted to assume control of the airplane, but the student did not relinquish control of the airplane. The instructor reported that he was unable to overpower the student and became concerned that the airplane was not producing enough lift and would aerodynamically stall or spin. The instructor pushed forward hard on the yoke to prevent a stall, and the airplane impacted terrain off the side of the runway about midfield.

The airplane sustained substantial damage to the fuselage and the left and right wings.

The instructor reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The student did not submit a written statement as requested.

An automated weather observation station located 14 miles northeast of the accident site reported that, about the time of the accident, the wind was from 210° at 8 knots and variable between 180° and 240°. The airplane was departing from runway 14.

The Federal Aviation Administration's Airplane Flying Handbook, FAA-H-8083-3B, contained a subsection titled, "Soft/Rough-Field Takeoff and Climb," which stated, in part, the following:

An attempt to climb prematurely or too steeply may cause the airplane to settle back to the surface as a result of the loss of ground effect. During the transition out of the ground effect area, the pilot should not attempt to climb out of ground effect before reaching the sufficient climb airspeed, as this may result in the airplane being unable to climb further, even with full power applied. Therefore, it is essential that the airplane remain in ground effect until at least V_X is reached.

Probable Cause and Findings

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

The student pilot's improper pitch and lateral control during a soft-field takeoff, which resulted in impact with terrain. Contributing to the accident was the student pilot's failure to relinquish control of the airplane to the instructor.

Findings

Aircraft	Lateral/bank control - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Student pilot (Cause) Lack of action - Student pilot (Factor)
Environmental issues	Soft surface - Effect on operation

Factual Information

History of Flight

Takeoff	Other weather encounter Loss of control in flight (Defining event) Attempted remediation/recovery Collision with terr/obj (non-CFIT)
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Student Pilot Information

Certificate:	Student	Age:	42, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	06/13/2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 124 hours (Total, all aircraft), 19.4 hours (Total, this make and model), 17 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 17 hours (Last 24 hours, all aircraft)		

Flight Instructor Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	41, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Right
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 2 Without Waivers/Limitations	Last FAA Medical Exam:	03/20/2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/23/2019
Flight Time:	(Estimated) 7110 hours (Total, all aircraft), 113 hours (Total, this make and model), 6625 hours (Pilot In Command, all aircraft), 362 hours (Last 90 days, all aircraft), 104 hours (Last 30 days, all aircraft), 3.2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N8619W
Model/Series:	PA28 235	Aircraft Category:	Airplane
Year of Manufacture:	1963	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-10133
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	05/15/2019, Annual	Certified Max Gross Wt.:	2900 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1723.8 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated	Engine Model/Series:	O-540
Registered Owner:	N8619W Llc	Rated Power:	235 hp
Operator:	N8619W Llc	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KSEZ, 4827 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	1835 UTC	Direction from Accident Site:	60°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.19 inches Hg	Temperature/Dew Point:	32° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lake Havasu, AZ (HII)	Type of Flight Plan Filed:	VFR
Destination:	Prescott, AZ (PRC)	Type of Clearance:	VFR; VFR Flight Following
Departure Time:	1010 PDT	Type of Airspace:	Class G

Airport Information

Airport:	Cottonwood (P52)	Runway Surface Type:	Asphalt
Airport Elevation:	3560 ft	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	4252 ft / 75 ft	VFR Approach/Landing:	None

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:	34.730000, -112.035278 (est)

Administrative Information

Investigator In Charge (IIC):	Eric M Gutierrez	Report Date:	02/11/2020
Additional Participating Persons:	Daniel W Meeker; FAA; Scottsdale, AZ		
Publish Date:	02/11/2020		
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=100141		

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