Aviation Investigation Final Report

Location:	Bowie, Texas	**Accident Number:**	CEN20LA150
Date & Time:	April 19, 2020, 15:00 Local	**Registration:**	N3670P
Aircraft:	Piper PA 18	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was taking off on a 310° heading for a personal flight; gusting wind was from 270°. The pilot stated that during the initial climb, he observed a normal ascent rate, so he retracted the flaps. He added that "it felt like a gust [of wind] picked our left wing up," and in response he pushed the control stick to the left twice, but the airplane did not respond. The airplane continued to bank right and descend as the pilot attempted to bring the wings level. As the airplane approached the ground, the pilot pulled the throttle control to idle, then the airplane struck a metal building frame on the northeast side of the field.

Postaccident examination of the airplane and flight control systems did not reveal any mechanical malfunction that would have precluded normal operation. It is likely that that pilot did not maintain control of the airplane in gusting wind conditions, resulting in an uncontrolled turn and descent into terrain.

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 control of the airplane during takeoff in gusting wind conditions, which resulted in an uncontrolled turn and descent into terrain.

Findings

Aircraft	Lateral/bank control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Takeoff	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On April 19, 2020, about 1500 central daylight time, a Piper PA-18 airplane, N3670P, was substantially damaged when it was involved in an accident near Bowie, Texas. The pilot and pilot-rated-passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that he taxied the airplane to the south end of a friend's private field, completed an engine run-up, and "checked all systems," with no anomalies noted. The pilot reported that he began the ground roll on a 300° heading and extended the flaps around 40 mph indicated airspeed (IAS). The airplane lifted off with a normal ascent rate and he retracted the flaps about 50 mph IAS. The pilot reported that "it felt like a gust [of wind] picked our left wing up," so he pushed the control stick to the left, but the airplane did not respond. He moved the control stick back to a neutral position then again to the left, but the airplane still did not respond. The airplane continued to bank right and descend as the pilot attempted to bring the wings level. As the airplane approached the ground the pilot pulled the throttle control to idle, then the airplane struck a metal building frame on the northeast side of the field. The airplane came to rest upright and the two occupants egressed without injury.

The responding Federal Aviation Administration (FAA) inspector examined the grass field and determined that the airplane's tire tracks were oriented on a 310° heading. Due to the disposition of the wreckage as the accident site, a complete examination was not possible, so the wreckage was relocated to a secure facility where a flight control system examination was completed. The inspector's examination revealed that all flight control cables were attached to their respective control surfaces except for one impact-related separation. The right aileron control cable was separated and exhibited damage, which was determined to be from the impact sequence. The inspector could not find any mechanical reason for the reported right bank.

Pilot Information

Certificate:	Private	**Age:**	55,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	October 10, 2018
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	December 31, 2019
Flight Time:	3054.5 hours (Total, all aircraft), 275 hours (Total, this make and model), 2911.5 hours (Pilot In Command, all aircraft), 46.5 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Pilot-rated passenger Information

Certificate:	Private	**Age:**	31,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Rear
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	January 4, 2016
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 20, 2019
Flight Time:	260 hours (Total, all aircraft), 19.7 hours (Total, this make and model), 231.8 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N3670P
Model/Series:	PA 18 150	**Aircraft Category:**	Airplane
Year of Manufacture:	1955	**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	18-4568
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	December 18, 2019 Annual	**Certified Max Gross Wt.:**	1750 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	5029.1 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	C91A installed, not activated	**Engine Model/Series:**	O-320
Registered Owner:	On file	**Rated Power:**	160 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLUD,1047 ft msl	**Distance from Accident Site:**	18 Nautical Miles
Observation Time:	14:55 Local	**Direction from Accident Site:**	149°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots / 15 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.65 inches Hg	**Temperature/Dew Point:**	26°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bowie, TX	**Type of Flight Plan Filed:**	None
Destination:	Bowie, TX (0F2)	**Type of Clearance:**	None
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Private Field n/a	**Runway Surface Type:**	Grass/turf
Airport Elevation:	1020 ft msl	**Runway Surface Condition:**	Dry;Vegetation
Runway Used:	31	**IFR Approach:**	None
Runway Length/Width:	1200 ft / 100 ft	**VFR Approach/Landing:**	None

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:**	33.516666,-97.773056(est)

Administrative Information

Investigator In Charge (IIC):	Lindberg, Joshua
Additional Participating Persons:	Thomas Good; Federal Aviation Administration; Irving, TX Gerald Dotson; Federal Aviation Administration; Irving, TX
Original Publish Date:	May 5, 2021
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101178