



Aviation Investigation Final Report

Location:	Lake City, Florida	Accident Number:	ERA19LA041
Date & Time:	November 11, 2018, 13:14 Local	Registration:	N52737
Aircraft:	Piper PA28R	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	3 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot was attempting to depart from a 2,600-ft-long turf runway with a right quartering tailwind with three passengers onboard. A witness estimated that the tailwind was about 8 knots. The pilot reported that the only thing he could recall about the flight was that he had "difficulty getting the airplane into the air." Another witness reported that, immediately after becoming airborne, the airplane entered a series of pitch oscillations; during each oscillation, the airplane appeared to be near the stall speed and lose altitude. After several oscillations, the airplane neared the left side of the runway and impacted treetops before impacting the ground and cartwheeling. One of the witnesses stated that the engine sound did not change during takeoff and that the engine appeared to be running well the entire time.

Given the evidence, it is likely that the pilot's failure to attain adequate airspeed before attempting the takeoff with a tailwind, which led to the airplane being unable to sustain flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to attain adequate airspeed before attempting the takeoff with a tailwind, which resulted in the airplane being unable to sustain flight.

Findings

Aircraft	Airspeed - Not attained/maintained
Personnel issues	Use of equip/system - Pilot
Environmental issues	Tailwind - Effect on operation

Factual Information

History of Flight

Initial climb	Loss of control in flight (Defining event)
Initial climb	Miscellaneous/other
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On November 11, 2018, about 1314 eastern standard time, a Piper PA-28R-201, N52737, was substantially damaged when it impacted the ground during the initial climb after takeoff from Cannon Creek Airpark (15FL), Lake City, Florida. The private pilot and two passengers were seriously injured, and one passenger sustained minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight. The personal flight was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91.

The right front seat passenger stated that as soon as they took off, he knew something was wrong because the airplane was not climbing very fast. He thought the airplane was going to touch back down on the runway when he noticed the airplane's nose going "up and down." The airplane made several nose-up and nose-down oscillations before going to the left side of the runway and contacting tree tops. The airplane then impacted the ground and cartwheeled.

The pilot stated that he remembered the takeoff roll. He stated he was "having difficulty getting the airplane in the air." The next thing he remembered was waking up in the hospital several days later.

A witness, who was parked on the side of the runway to watch the airplane taking off, stated he observed the pilot perform a preflight engine run-up and the airplane begin the departure on runway 27, a 2,600 ft-long turf runway. The wind was a right quartering tailwind at an estimated velocity about 8 to 10 mph. He thought the pilot "forced" the airplane off the ground and it immediately began "oscillations." When the airplane appeared to be near stall speed, the nose lowered and would then raise again, which repeated until the airplane contacted some tree tops. He further stated that each time the airplane oscillated, it resulted in a lower altitude.

Another witness, who was also a pilot, watched the airplane during the takeoff. He stated that it appeared as if the accident pilot had "pulled" the airplane off the ground too early, and he watched as the airplane "porpoised" 3 to 4 times down the runway, while flying at or near stall speed. The witness further described that there was no change in the engine's sounded throughout the takeoff, and that it appeared to be running well the entire time.

Examination of the wreckage by a Federal Aviation Administration (FAA) inspector revealed that the airplane's wings sustained buckling and tears. The left main landing gear collapsed. The fuselage had buckling along its length aft to the elevator. The rudder was undamaged.

The four seat, low-wing, tricycle gear airplane was manufactured in 1989. It was powered by a Lycoming IO-360 series, 200-horsepower engine, equipped with a two-bladed McCauley propeller.

The pilot held a private pilot certificate, with ratings for airplane single-engine land and instrument airplane. His FAA third class medical certificate was issued on August 20, 2015. He reported 3,583 total hours of flight experience at that time.

Pilot Information

Certificate:	Private	Age:	75, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	August 20, 2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	3583 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N52737
Model/Series:	PA28R 201	Aircraft Category:	Airplane
Year of Manufacture:	1989	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28-37021
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	IO-360
Registered Owner:		Rated Power:	200 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:	KGNV, 123 ft msl	Distance from Accident Site:	34 Nautical Miles
Observation Time:	18:06 Local	Direction from Accident Site:	144°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 2700 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.19 inches Hg	Temperature/Dew Point:	25°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lake City, FL (15FL)	Type of Flight Plan Filed:	None
Destination:	Lake City, FL (15FL)	Type of Clearance:	None
Departure Time:	13:14 Local	Type of Airspace:	

Airport Information

Airport:	Cannon Creek Airpark 15FL	Runway Surface Type:	Grass/turf
Airport Elevation:	125 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2600 ft / 50 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	2 Serious, 1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Serious, 1 Minor	Latitude, Longitude:	30.150554, -82.665(est)

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Karen Lunde; FAA; Orlando, FL
Original Publish Date:	April 13, 2020
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98626

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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](#).