



Aviation Investigation Final Report

Location:	Winter Haven, Florida	Accident Number:	ERA18LA257
Date & Time:	September 24, 2018, 09:57 Local	Registration:	N6950A
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Landing area overshoot	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot was conducting a supervised solo flight in the airport traffic pattern. Each of the previous two takeoff and landings were uneventful. During the initial climb on the third takeoff, the student observed the airspeed rapidly decrease. He declared an emergency, lowered the nose, and turned the airplane 180° to land on the runway. The airplane overran the end of the runway and impacted a fence, resulting in substantial damage to the windshield and left wing. The student's instructor witnessed the takeoff and stated that the airplane's angle of attack was excessively high and that there would have been adequate runway remaining for the student to land straight ahead instead of turning 180°. Postaccident examination of the engine did not reveal any anomalies.

It is likely that the student pilot's excessively nose-high pitch attitude during the takeoff resulted in the observed loss of airspeed.

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 attitude control during the initial climb, which resulted in a loss of airspeed, and his subsequent decision to conduct a 180° turn following the perceived anomaly, which resulted in a runway overrun.

Findings

Personnel issues	Incorrect action performance - Student/instructed pilot
Personnel issues	Identification/recognition - Student/instructed pilot

Factual Information

History of Flight

Initial climb	Miscellaneous/other
Initial climb	Attempted remediation/recovery
Landing	Landing area overshoot (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

On September 24, 2018, at 0957 eastern daylight time, a Cessna 172, N6950A, was substantially damaged when it was involved in an accident near Winter Haven, Florida. The student pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

The student pilot stated that the accident flight was his third flight around the airport traffic pattern with his flight instructor observing from the ground. Each of the previous two takeoffs and landings were uneventful. During the third takeoff from runway 5, the acceleration and airspeed appeared normal during the climb, but after reaching about 300 ft above the ground, the airspeed began quickly decreasing from 60 knots to 50 knots. He declared an emergency, lowered the nose, and turned the airplane 180° to land on the runway. He reported he was “far down the runway” before he could get the airplane on the ground, and, once he landed, he could not stop the airplane within the remaining runway distance. The airplane continued off the runway and impacted a perimeter fence before coming to a stop.

The student pilot reported that in the initial climb, “the plane started losing power;” however, he did not report any other anomalies or a loss of engine rpm.

The instructor stated that the student was flying well during the previous two takeoffs and landings, but during the third takeoff, the airplane appeared to be at an excessively high angle of attack during the climb, and the airspeed was likely “bleeding off.” The airplane was directly over the runway when the student turned 180° even though “he had plenty of runway ahead of him.” After the accident, the instructor reviewed the accident flight with the student and during subsequent flight instruction, they performed a similar scenario to show the effects of airplane performance, situational awareness, and how to safely recover from excessive angle of attack.

Photographs provided by a Federal Aviation Administration (FAA) inspector revealed that the left wing and windshield sustained substantial damage.

The instructor, who was also the airplane owner, reported that during postaccident maintenance and repair, no mechanical irregularities were observed with the engine or airplane.

Pilot Information

Certificate:	Student	Age:	59,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 9, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 27.7 hours (Total, all aircraft), 23.7 hours (Total, this make and model), 1.5 hours (Pilot In Command, all aircraft), 21.2 hours (Last 90 days, all aircraft), 8.5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N6950A
Model/Series:	172 Undesignat	Aircraft Category:	Airplane
Year of Manufacture:	1956	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	29050
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 25, 2018 Annual	Certified Max Gross Wt.:	2299 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4302.48 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	C91A installed, not activated	Engine Model/Series:	O-300 SER
Registered Owner:		Rated Power:	145 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:	GIF, 145 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	09:53 Local	Direction from Accident Site:	30°
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:	100°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	28°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Winter Haven, FL (GIF)	Type of Flight Plan Filed:	None
Destination:	Winter Haven, FL (GIF)	Type of Clearance:	None
Departure Time:	09:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	Winter Haven'S Gilbert GIF	Runway Surface Type:	Asphalt
Airport Elevation:	145 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	5006 ft / 100 ft	VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	28.057777,-81.758613(est)

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence		
Additional Participating Persons:	Peter Kandravi; FAA FSDO; Orlando, FL		
Original Publish Date:	March 16, 2022	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98338		

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