Aviation Investigation Final Report

Location:	Springhill, Louisiana	**Accident Number:**	CEN18LA257
Date & Time:	July 3, 2018, 12:57 Local	**Registration:**	N689KC
Aircraft:	Piper PA46	**Aircraft Damage:**	Substantial
Defining Event:	Aerodynamic stall/spin	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During landing, the airplane bounced, and the pilot applied power to go around. The pilot reported that the engine did not produce full power and the airplane began to slow down. Onboard data indicated that the pilot accelerated the airplane to a maximum speed of 70 kts before he retracted the flaps; the airplane rolled right and impacted the runway, resulting in substantial damage.

Examination of the airplane revealed no evidence of mechanical malfunctions or failures that would preclude normal operation. The airplane's published stall speed in the landing configuration was 60 knots; and 69 kts with landing gear and flaps retracted. The procedure for a go-around included retracting the wing flaps incrementally after attaining an airspeed of 80 kts. The circumstances of the accident are consistent with the pilot's failure to attain the proper airspeed during the go-around, and his improper decision to fully retract the wing flaps before attaining adequate airspeed, which resulted in an exceedance of the airplane's critical angle of attack, an aerodynamic stall, and impact with the runway.

Probable Cause and Findings

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

The pilot’s exceedance of the airplane's critical angle of attack during an improper go-around procedure which resulted in an aerodynamic stall.

Findings

Aircraft	Angle of attack - Capability exceeded
Personnel issues	Aircraft control - Pilot
Personnel issues	Use of policy/procedure - Pilot

Factual Information

History of Flight

Approach-VFR go-around	Aerodynamic stall/spin (Defining event)

On July 3, 2018, about 1257 central daylight time, a Piper PA-46-350P airplane, N689KC, was substantially damaged when it was involved in an accident near Springhill, Louisiana. The pilot and passengers were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that, during landing, the airplane bounced on the runway, and he applied engine power to go around; however, the engine would not produce full power and the airplane began to slow down. The pilot retracted the landing gear and flaps, and the airplane subsequently impacted the runway.

A witness to the accident observed the airplane as it conducted a landing to the Springhill Airport. The witness estimated that the airplane touched down about 1/3 of the way down the 4,202-ft-long runway. When the airplane touched down, it bounced, then bounced a second time in a nose-high attitude. The right wing dropped, and the airplane impacted terrain.

The responding Federal Aviation Administration (FAA) inspector reported the fuselage was substantially damaged during the accident. He also reported that a visual examination of the airplane did not detect any preimpact anomalies with the airplane.

Data retrieved from the airplane's G1000 system captured the accident flight. The airplane descended at 12:39. As it descended below 1,000 ft, the engine rpm was 2,400 rpm. At 12:56:40, the engine speed decreased, and reached 1,225 rpm at 12:56:57. While the engine speed decreased, the airplane pitched up. The airplane crossed the runway threshold at 12:56:47 with the airspeed about 80 knots (kts). At 12:56:57, the engine speed increased to over 2,400 rpm in two seconds and remained there throughout the accident sequence. At this point, pitch had increased to 11° nose up and the airspeed was 59 kts. Airspeed increased about 3 seconds after the engine was increased. At 12:57:13, the pitch was 17° nose up and the airspeed was 70 kts. The data also indicated that the airplane was about 220 ft in altitude before it started a roll to the right. The data indicated that the airplane collided with the ground at 12:57:19.

According to the airplane's Pilot Operating Handbook, the airplane's minimum landing approach and go-around speed was 80 kts. The published stall speed in the landing configuration was 60 kts; with landing gear and flaps retracted, the stall speed was 69 kts. The go-around procedure stated that after applying full rich mixture, propeller rpm, and throttle and attaining 80 kts, the landing gear should be retracted, and the flaps retracted incrementally.

Of note, this accident was initially reported as N479CD due to the registration markings on the airplane, during the investigation it was discovered that the registration was changed to N689KC about a year prior to the accident.

Pilot Information

Certificate:	Commercial	**Age:**	47,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1309 hours (Total, all aircraft), 23 hours (Total, this make and model), 110 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N689KC
Model/Series:	PA46 350P	**Aircraft Category:**	Airplane
Year of Manufacture:	2016	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	4636689
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	4299 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	TIO-540-AE2A
Registered Owner:	CD Air, LLC	**Rated Power:**	350 Horsepower
Operator:	CD Air, LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMNE,279 ft msl	**Distance from Accident Site:**	21 Nautical Miles
Observation Time:	18:15 Local	**Direction from Accident Site:**	165°
Lowest Cloud Condition:	Scattered / 5500 ft AGL	**Visibility**	10 miles
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	40°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.97 inches Hg	**Temperature/Dew Point:**	34°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fayettevile, NC (KFAY)	**Type of Flight Plan Filed:**	
Destination:	Springhill, LA	**Type of Clearance:**	VFR
Departure Time:	11:50 Local	**Type of Airspace:**	

Airport Information

Airport:	Springhill SPH	**Runway Surface Type:**	Asphalt
Airport Elevation:	217 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	4202 ft / 75 ft	**VFR Approach/Landing:**	Full stop;Go around

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	On-ground
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.983612,-93.409164(est)

Administrative Information

Investigator In Charge (IIC):	Aguilera, Jason
Additional Participating Persons:	George Waddell; FAA FSDO; Baton Rouge, LA
Original Publish Date:	May 27, 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=97702