



Aviation Investigation Final Report

Location:	Warrenton, Virginia	Accident Number:	GAA18CA257
Date & Time:	May 6, 2018, 10:30 Local	Registration:	N83581
Aircraft:	Aeronca 7AC	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

According to the flight instructor in the tailwheel-equipped airplane, the purpose of flight was to provide a "proficiency check" for the pilot in the front seat. The pilot was on the controls and landed the airplane after accomplishing one pattern. During the subsequent takeoff, about 5 ft above ground level, the airplane's right wing "went down," and the pilot applied left stick, but the airplane struck the ground.

During an interview with the National Transportation Safety Board investigator-in-charge, the instructor reported that he believed that the airspeed was too slow during the takeoff climb and that the airplane stalled.

The airplane sustained substantial damage to the right-wing lift struts.

The METAR at the airport reported that, about the time of the accident, the wind was from 20° at 4 knots. The pilots used runway 15.

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

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 adequate airspeed and his exceedance of the airplane's critical angle of attack during the takeoff initial climb, which resulted in an aerodynamic stall.

Findings

Aircraft	Angle of attack - Not attained/maintained
Aircraft	Airspeed - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Takeoff	Aerodynamic stall/spin (Defining event)
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Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	76,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	Glider	Restraint Used:	Lap only
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 With waivers/limitations	Last FAA Medical Exam:	September 19, 2017
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 23, 2016
Flight Time:	(Estimated) 3450 hours (Total, all aircraft), 63 hours (Total, this make and model), 3355 hours (Pilot In Command, all aircraft), 163 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Private	Age:	54,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	March 8, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 3, 2017
Flight Time:	(Estimated) 339 hours (Total, all aircraft), 17 hours (Total, this make and model), 247 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aeronca	Registration:	N83581
Model/Series:	7AC NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	7AC-2257
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	July 5, 2017 Annual	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5083.61 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C91 installed, not activated	Engine Model/Series:	A-65-8
Registered Owner:		Rated Power:	65 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:	KHWY, 338 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	14:15 Local	Direction from Accident Site:	222°
Lowest Cloud Condition:	Scattered / 1100 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	16°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Warrenton, VA (HWY)	Type of Flight Plan Filed:	None
Destination:	Warrenton, VA (HWY)	Type of Clearance:	None
Departure Time:	10:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	WARRENTON-FAUQUIER HWY	Runway Surface Type:	Asphalt
Airport Elevation:	336 ft msl	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Stop and go;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.586387,-77.710556(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	David G Reese; FAA; Dulles, VA
Original Publish Date:	November 5, 2018
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97186

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).