



Aviation Investigation Final Report

Location:	Concord, Georgia	Accident Number:	ERA19TA182
Date & Time:	May 27, 2019, 10:00 Local	Registration:	N1797E
Aircraft:	Aeronca 7AC	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he approached the turf runway intending to conduct a full-stop landing. He stated that upon applying the brakes, the right brake “stuck and would not release,” which resulted in the airplane veering right. The pilot attempted to pump the brakes to release the right brake and was unable to regain directional control. The airplane traveled off the right side of the runway and impacted trees. A ground scar consistent with skidding of the right tire was observed on the turf leading up to the edge of the road near where the airplane came to rest. The spars of both wings were fractured, and the fractured wing sections were displaced aft. During a postaccident interview, the airplane’s owner reported that the brakes were “very old” and required frequent adjustments and that she had planned to replace them. Review of the airframe logbooks revealed multiple entries related to the right brakes in the 4 years before the accident.

Postaccident examination and operational testing of the brake assemblies did not reveal any evidence of preimpact mechanical malfunctions or failures that would have caused the right brake to lock.

Probable Cause and Findings

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

The pilot's inability to maintain directional control during landing for reasons that could not be determined because postaccident examination of the airplane brake assemblies revealed no anomalies that would have caused the right brake to lock, which resulted in a runway excursion.

Findings

Not determined	(general) - Unknown/Not determined
Aircraft	Brake - Not specified
Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Attain/maintain not possible

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

On May 27, 2019, at 1000 eastern daylight time, an Aeronca 7AC, N1797E, was substantially damaged during a runway excursion while landing at Windrift Aerodrome (2GA5), Concord, Georgia. The private pilot was not injured. The airplane was privately owned and operated as a personal flight under the provisions of Title 14 *Code of Federal Regulations* Part 91. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed for the local flight that originated from 2GA5 about 30 minutes earlier.

The pilot informed a Federal Aviation Administration (FAA) inspector, who arrived on scene after the accident, that he approached runway 35 intending to conduct a full-stop landing. He stated that the airplane touched down normally on the turf runway and that when he "tapped the left brake" to make a left turn, the brakes did not respond. He then tapped the right brake and stated that "it stuck and would not release," despite his attempts to pump the brakes. The airplane continued to veer right, departed the runway, crossed a gravel road and collided with trees.

According to the pilot's written statement, he applied normal brakes; however, the right brake "stuck" and the airplane veered to the right.

According to the airplane owner, she had planned to replace the airplane's brakes, which were "very old" and required frequent adjustments.

According to FAA airman records, the pilot held a private pilot certificate with a rating for airplane single-engine land. His most recent FAA third-class medical certificate was issued in June 2010, at which time he reported 325 flight hours. In his written statement, the pilot reported that his logbooks were lost and that he had not received a biannual flight review for 3 years.

According to FAA airworthiness records, the two-seat tailwheel-equipped airplane was manufactured in 1946. The tachometer located in the airplane at the time of the accident indicated 622.97 hours. The most recent annual inspection was completed May 7, 2019, at a tachometer time of 616.97 hours.

Examination of the accident site and wreckage revealed that the airplane came to rest about 100 ft east of runway 35, about 1,200 ft beyond the approach end of the 3,200-ft-long runway. A ground scar consistent with skidding of the right tire was observed on the turf leading up to the edge of the gravel road near where the airplane came to rest. The spars of both wings were fractured, and the fractured wing sections were displaced aft.

Review of the airframe logbook revealed multiple entries related to the right brakes in the 4 years preceding the accident, including replacement of the right cylinder, repair of the right master cylinder support rod, cleaning of the disc pads, pressure plates and cylinder assembly, and repair of the brake cylinder bracket to remove the difference in the location of the brake pedal.

Examination of the brakes by a mechanic and FAA airworthiness inspector revealed normal operation and no visible damage; however, the right brake caliper showed signs that an internal seal had been leaking. Further examination of the brake calipers revealed no anomalies that would have caused the right brake to lock.

Pilot Information

Certificate:	Private	Age:	76, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot With waivers/limitations	Last FAA Medical Exam:	June 24, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	325 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aeronca	Registration:	N1797E
Model/Series:	7AC	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	7AC-5364
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	May 7, 2019 Annual	Certified Max Gross Wt.:	1220 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3011.9 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C-85-12F
Registered Owner:	On file	Rated Power:	85 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:	KOPN,796 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	09:55 Local	Direction from Accident Site:	122°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / None	Turbulence Type Forecast/Actual:	Unknown / None
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	28°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Concord, GA (2GA5)	Type of Flight Plan Filed:	None
Destination:	Concord, GA (2GA5)	Type of Clearance:	None
Departure Time:	09:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	Windrift Aerodrome 2GA5	Runway Surface Type:	Grass/turf
Airport Elevation:	780 ft msl	Runway Surface Condition:	Vegetation
Runway Used:	35	IFR Approach:	None
Runway Length/Width:	3200 ft / 80 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	33.044445,-84.43222(est)

Administrative Information

Investigator In Charge (IIC):	Spencer, Lynn
Additional Participating Persons:	Zachary Andrade; FAA/FSDO; Atlanta, GA
Original Publish Date:	December 3, 2020
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=99502

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).