



Aviation Investigation Final Report

Location:	Dallas, Texas	Accident Number:	CEN18LA315
Date & Time:	August 3, 2018, 08:15 Local	Registration:	N2546B
Aircraft:	COLUMBIA AIRCRAFT MFG LC41-550FG	Aircraft Damage:	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot was taxiing to the ramp after an uneventful landing when the airplane did not respond to his application of brakes. The airplane subsequently departed the taxiway and entered a grass median, where the right wing impacted a lighted taxiway sign. The airplane was not equipped with nosewheel steering and relied on differential brake input to steer the airplane while on the ground. A postaccident examination noted that the brake pads for both main landing gear were worn excessively, which allowed brake fluid to leak past their respective O-ring seals when the brake pedals were depressed. Additionally, the right main tire was deflated and exhibited rotational scoring where the wheel rim had contacted the tire. It is likely that the right main tire deflated during taxi and the pilot was unable to adequately maintain directional control due to the excessively worn brake pads.

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 taxi due to excessively worn brake pads and a deflated right main tire.

Findings

Aircraft	Directional control - Attain/maintain not possible
Aircraft	Wheel/ski/float - Malfunction
Aircraft	Landing gear brakes system - Fatigue/wear/corrosion
Environmental issues	Sign/marker - Contributed to outcome

Factual Information

History of Flight

Taxi-from runway	Sys/Comp malf/fail (non-power) (Defining event)
Taxi-from runway	Loss of control on ground
Taxi-from runway	Ground collision

On August 3, 2018, about 0815 central daylight time, a Columbia Aircraft Manufacturing LC41-550FG, N2546B, departed the taxiway and collided with a taxiway sign while taxiing at Dallas-Fort Worth International Airport (DFW), Dallas, Texas. The private pilot was not injured, and the airplane sustained substantial damage. The airplane was registered to and operated by Reitz Offshore Logistics, LLC, under the provisions of Title 14 *Code of Federal Regulations (CFR)* Part 91 without a flight plan. Day visual meteorological conditions prevailed for the cross-country flight that departed Wiley Post Airport (PWA), Oklahoma City, Oklahoma, about 0715.

According to the pilot, after an uneventful landing on runway 17L he was issued taxi instructions to a fixed base operator (FBO) on the general aviation ramp. The pilot reported that the taxi was uneventful until the right turn from taxiway K to taxiway Z. He stated that the airplane did not respond to a full application of right rudder and brake pedal. Additionally, an application of the left brake pedal did not slow the airplane. The airplane departed the taxiway and went into a grass median where the right wing impacted a lighted taxiway sign.

A postaccident examination of the airplane was completed by Federal Aviation Administration (FAA) inspectors with the North Texas Flight Standards District Office. The upper and lower composite skins of the right wing were fractured and crushed over an area measuring about 2.5 ft wide. The airplane was not equipped with nosewheel steering and relied on differential brake input to steer the airplane while on the ground. The FAA inspectors noted that the brake pads for both main landing gear brake pads were worn excessively, which allowed brake fluid to leak past their respective O-ring seals when the brake pedals were depressed. Additionally, the right main tire was deflated and exhibited rotational scoring where the wheel rim had contacted the tire.

Pilot Information

Certificate:	Private	Age:	32,Male
Airplane Rating(s):	Single-engine land	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 Without waivers/limitations	Last FAA Medical Exam:	November 6, 2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 10, 2017
Flight Time:	1122.9 hours (Total, all aircraft), 214.1 hours (Total, this make and model), 1122.9 hours (Pilot In Command, all aircraft), 93.6 hours (Last 90 days, all aircraft), 31.8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	COLUMBIA AIRCRAFT MFG	Registration:	N2546B
Model/Series:	LC41-550FG	Aircraft Category:	Airplane
Year of Manufacture:	2006	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	41582
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 28, 2018 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	129 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	696 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-550-C9
Registered Owner:		Rated Power:	310 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DFW,607 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	07:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 11000 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	None / Clear air
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	24°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Oklahoma City, OK (PWA)	Type of Flight Plan Filed:	None
Destination:	Dallas, TX (DFW)	Type of Clearance:	VFR
Departure Time:	07:15 Local	Type of Airspace:	Class B

Airport Information

Airport:	Dallas-Fort Worth Intl DFW	Runway Surface Type:	
Airport Elevation:	607 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

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:	32.89722,-97.03778(est)

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	Cristobal Diaz; Federal Aviation Administration - North Texas FSDO; Irving, TX Charles Kuykendall; Federal Aviation Administration - North Texas FSDO; Irving, TX
Original Publish Date:	September 27, 2019
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97996

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](#).