

Aviation Investigation Final Report

Location: Topeka, Kansas Accident Number: CEN21LA448

Date & Time: September 18, 2021, 13:00 Local Registration: N140R

Aircraft: Cessna 305A Aircraft Damage: Substantial

Defining Event: Loss of control on ground **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot of the tailwheel-equipped airplane reported that he conducted several takeoff and landings before the accident that day, at a different airport, all without incident. During the accident landing, the airplane touched down, veered left, and the pilot attempted to correct with right rudder. Subsequently, the airplane exited the runway, the tail veered to the left, and the airplane "rocked" left. The left wing and left elevator impacted the ground resulting in substantial damage. The airplane came to rest upright on the main landing gear and the pilot was able to taxi the airplane to parking without further incident.

A witness reported seeing the tailwheel rotating after takeoff. An examination revealed that the tailwheel locking mechanism did not function.

Probable Cause and Findings

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

The loss of control and ground loop due to the mechanical malfunction of the tailwheel lock.

Findings

Personnel issues Aircraft control - Pilot

Personnel issues Task monitoring/vigilance - Pilot

Aircraft Directional control - Not attained/maintained

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Factual Information

History of Flight

Landing-flare/touchdown	Abnormal runway contact	
Landing-flare/touchdown	Loss of control on ground (Defining event)	
Landing-flare/touchdown	Attempted remediation/recovery	
Landing-flare/touchdown	Collision during takeoff/land	

Pilot Information

Certificate:	Commercial; Flight instructor; Private	Age:	66,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	BasicMed Without waivers/limitations	Last FAA Medical Exam:	January 5, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 3, 2020
Flight Time:	(Estimated) 3400 hours (Total, all aircraft), 5 hours (Total, this make and model), 3200 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N140R
Model/Series:	305A	Aircraft Category:	Airplane
Year of Manufacture:	1951	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22834
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental Motors
ELT:	Installed, not activated	Engine Model/Series:	O-470 Series
Registered Owner:	On file	Rated Power:	230 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None
Operator Does Business As:	On file	Operator Designator Code:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTOP,876 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	310°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	29°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Leavenworth, KS (FLV)	Type of Flight Plan Filed:	None
Destination:	Topeka, KS	Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	Class D

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Airport Information

Airport:	PHILIP BILLARD MUNI TOP	Runway Surface Type:	Asphalt;Concrete
Airport Elevation:	881 ft msl	Runway Surface Condition:	Dry
Runway Used:	13/31	IFR Approach:	None
Runway Length/Width:	5099 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.067103,-95.616981(est)

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Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Keith Allen; FAA Wichita FSDO; Wichita, KS
Original Publish Date:	March 25, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=103952

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.

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