



Aviation Investigation Final Report

Location:	Augusta, Kansas	Accident Number:	CEN12LA471
Date & Time:	July 21, 2012, 11:20 Local	Registration:	N4749A
Aircraft:	Piper PA-22-150	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the preflight run-up was uneventful and that the brakes worked normally at that time. After takeoff, she remained in the airport traffic pattern and returned for a full stop landing. The approach and landing were normal; however, during the landing roll, the brakes were completely ineffective. Upon reaching the end of the runway, the pilot thought that the airplane was still traveling too fast to safely turn onto the taxiway. She elected to overrun the end of the runway, and the airplane encountered a concrete culvert. A postaccident examination did not reveal any anomalies consistent with a brake system failure. However, the main landing gear tires did not exhibit any flat areas indicative of a skidding tire nor were any skid marks corresponding to the accident airplane observed on the runway pavement.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of brake effectiveness on landing roll for reasons that could not be determined because a postaccident brake system examination did not reveal any anomalies, which resulted in a runway excursion.

Findings

Aircraft	Landing gear brakes system - Inoperative
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Landing-landing roll	Sys/Comp malf/fail (non-power)
Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion

On July 21, 2012, about 1120 central daylight time, a Piper PA-22-150, N4749A, was substantially damaged during a runway excursion while landing on runway 18 (4,201 feet by 60 feet, asphalt) at the Augusta Municipal Airport (3AU), Augusta, Kansas. The pilot and sole passenger sustained minor injuries. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, which was not operated on a flight plan. The local flight originated from 3AU about 1115.

The pilot reported that the preflight run-up was uneventful and the brakes worked normally at that time. After takeoff, she remained in the airport traffic pattern and returned for a full stop landing. The pilot stated that the approach and landing were normal; however, on rollout the brakes were completely ineffective. Upon reaching the end of the runway, she thought that the airplane was still traveling too fast to safely turn onto the taxiway. She elected to overrun the end of the runway and encountered a concrete culvert.

A postaccident examination conducted by Federal Aviation Administration inspectors was inconclusive with respect to the brake system. The examination did not reveal any anomalies consistent with a brake system failure. However, the main landing gear tires did not exhibit any flat areas indicative of a skidding tire, nor were any skid marks corresponding to the accident airplane observed on the runway pavement.

According to the pilot, the airplane was equipped with the original handbrake. There were no toe brakes installed. The pilot reported a total flight time of 136 hours, with 96 hours in Piper PA-22-150 airplanes.

Pilot Information

Certificate:	Private	Age:	57,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	February 14, 2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 18, 2011
Flight Time:	135 hours (Total, all aircraft), 96 hours (Total, this make and model), 36 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N4749A
Model/Series:	PA-22-150	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-3894
Landing Gear Type:		Seats:	4
Date/Type of Last Inspection:	September 21, 2011 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2154 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320
Registered Owner:	On file	Rated Power:	180 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:	AAO,1421 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	11:54 Local	Direction from Accident Site:	315°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	33°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Augusta, KS (3AU)	Type of Flight Plan Filed:	None
Destination:	Augusta, KS (3AU)	Type of Clearance:	None
Departure Time:	11:15 Local	Type of Airspace:	

Airport Information

Airport:	Augusta Municipal 3AU	Runway Surface Type:	Asphalt
Airport Elevation:	1328 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	4201 ft / 60 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	37.671665,-97.077774(est)

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Steven Sparks; FAA – Wichita Flight Standards; Wichita, KS
Original Publish Date:	October 9, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=84423

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