



Aviation Investigation Final Report

Location:	RUTHERFORDTON, North Carolina	Accident Number:	ATL83LA307
Date & Time:	July 28, 1983, 12:15 Local	Registration:	N2135F
Aircraft:	PIPER PA-28-181	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

DURING THE LANDING ROLL, THE PLT NOTED THAT THE RIGHT BRAKE WAS INEFFECTIVE. SHE REQUESTED THAT THE PLT IN THE COPILOT'S SEAT ATTEMPT TO REGAIN CONTROL, BUT THE COPILOT CONFIRMED THE SAME PROBLEM WHILE USING HER BRAKES. SINCE THE RWY WAS RELATIVELY SHORT, THE DENSITY ALTITUDE WAS HIGH & THE ACFT HAD A FULL LOAD OF PASSENGER'S, THE AIRCREW DECIDED NOT TO ATTEMPT A GO-AROUND. THE LAST PART OF THE RWY SLOPED DOWNHILL, MAKING THE ACFT MORE DIFFICULT TO STOP. SUBSEQUENTLY, THE ACFT WENT OFF THE LEFT SIDE OF THE RWY, TRAVELED DOWN A SLOPE & WAS SUBSTANTIALLY DAMAGED. AN EXAM REVEALED THAT THE RIGHT MAIN BRAKE LININGS (CLEVELAND PN 6630) WERE WORN PAST THE RETAINING RIVETS & INTO THE METAL CALIPER. THE EDGE OF THE O-RING PISTON SEAL PROTRUDED PAST THE CYLINDER LIP & WAS BROKEN. ALSO, NO FLUID WAS REMAINING IN THE CYLINDER. THE ACFT HAD BEEN FLOWN APRX 129 HRS SINCE NEW BRAKE LININGS WERE INSTALLED.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - WORN
2. (C) MAINTENANCE - INADEQUATE

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

3. DIRECTIONAL CONTROL - NOT POSSIBLE
4. GROUND LOOP/SWERVE - UNCONTROLLED

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

5. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Private	Age:	41,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 27, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	216 hours (Total, all aircraft), 156 hours (Total, this make and model), 121 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N2135F
Model/Series:	PA-28-181 PA-28-181	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	287990188
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	November 16, 1982 Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	128 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	728 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4M
Registered Owner:	SUE T. LJUNGDAHL	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HKY ,1189 ft msl	Distance from Accident Site:	33 Nautical Miles
Observation Time:	11:50 Local	Direction from Accident Site:	35°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	RUTHERFORDTON (57A)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	
Departure Time:	11:30 Local	Type of Airspace:	

Airport Information

Airport:	RUTHERFORD-COUNTY 57A	Runway Surface Type:	Asphalt
Airport Elevation:	1078 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	4400 ft / 75 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	35.360946,-81.960723(est)

Administrative Information

Investigator In Charge (IIC): Ware, Elinor

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=6150>

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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](#).