



# Aviation Investigation Final Report

<b>Location:</b>	SOUTHERN PINES, North Carolina	<b>Accident Number:</b>	ATL99LA082
<b>Date &amp; Time:</b>	May 8, 1999, 17:30 Local	<b>Registration:</b>	N7001P
<b>Aircraft:</b>	Piper PA-24-250	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The flight departed Wadesboro, North Carolina, en route to Newport News, Virginia, with a planned fuel stop in Ahoskie, North Carolina. Upon arriving in Newport News, the pilot attempted to lower the landing gear and noticed an unsafe landing gear indication. Normal and emergency procedures for retraction of the landing gear were unsuccessful. The pilot elected to divert to Southern Pines, North Carolina. He performed a wheels-up landing on the grass between the two runways and during landing rollout, the aircraft impacted a ditch. An examination of the airplane revealed that the strap bracket assembly was missing the nut that attaches it to the main landing gear spring attachment bracket. As a result, the left landing gear had come loose and reversed direction, preventing the landing gear from fully extending and locking in the down position.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A failure of the left main landing gear retraction assembly as a result of the disconnection of the left main landing gear strap bracket assembly from the main gear spring attachment bracket due to the missing nut. A factor was the ditch.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: APPROACH - VFR PATTERN - BASE TURN

Findings

1. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - FAILURE,TOTAL
2. (C) LANDING GEAR,MAIN GEAR ATTACHMENT - DISCONNECTED

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Occurrence #2: WHEELS UP LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. TERRAIN CONDITION - GRASS
4. (F) TERRAIN CONDITION - DITCH

## Factual Information

On May 8, 1999, at 1730 eastern daylight time, a Piper PA-24-250, N7001P, collided with a ditch during a wheels-up landing at the Moore County Airport in Southern Pines, North Carolina. The personal flight was operated by the pilot under the provisions of Title 14 CFR Part 91 with a VFR flight plan filed. Visual weather conditions prevailed at the time of the accident. The private pilot and the passenger/pilot were not injured; the airplane sustained substantial damage. The flight originated from Tri-County Airport in Ahoskie, North Carolina, at 1400.

According to the pilot, the flight departed Wadesboro, North Carolina, at 1200 on the day of the accident, with a final destination of Newport News, Virginia. They landed at Tri-County Airport at 1215 for a planned refueling stop. Upon arriving in Newport News at 1445, the flight entered visual traffic for a full stop landing on runway 25 and received a clearance to land. While turning onto a left base, the pilot lowered the landing gear handle and noticed an unsafe landing gear indication. He notified the tower that the aircraft's landing gear did not fully extend, and he requested to perform a go around.

The pilot completed the emergency landing gear manual extension procedure, but was unsuccessful in lowering the landing gear. The pilot notified the tower of his intention to divert to Southern Pines, where he knew there was a grass strip on which to land. At the time, the aircraft had over two and a half hours of fuel remaining, and the pilot wanted to deplete as much fuel as possible prior to landing. While en route to Southern Pines, the pilot was able to retract the landing gear by reattaching the gear motor arm and raising the landing gear electronically. Upon arrival at Southern Pines, he again attempted to extend the landing gear but was unsuccessful. The pilot performed a wheels-up landing on a grass strip between the two runways. During the landing rollout, the aircraft impacted a ditch.

Following the accident, an inspection was performed on the landing gear by an FAA inspector. The examination revealed that the strap bracket assembly was missing the nut that attaches it to the main landing gear spring attachment bracket. The left landing gear had come loose and reversed direction, preventing the landing gear from fully extending and locking in the down position.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	59, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 18, 1998
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	275 hours (Total, all aircraft), 59 hours (Total, this make and model), 15 hours (Last 90 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N7001P
<b>Model/Series:</b>	PA-24-250 PA-24-250	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-2146
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	June 30, 1998 Annual	<b>Certified Max Gross Wt.:</b>	2800 lbs
<b>Time Since Last Inspection:</b>	30 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1300 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-540
<b>Registered Owner:</b>	ROBERT H. BRASINGTON	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>	BENJAMIN C. BRASINGTON	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	AHOSKIE , NC (ASJ)	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	NEWPORT NEWS , VA (PHF)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	14:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	MOORE COUNTY AIRPORT SOP	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	461 ft msl	<b>Runway Surface Condition:</b>	Rough
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Precautionary landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	35.179477,-79.399375(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wilson, Butch
<b>Additional Participating Persons:</b>	LINDA FALCON; GREENSBORO , NC
<b>Original Publish Date:</b>	November 2, 2000
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=46246">https://data.nts.gov/Docket?ProjectID=46246</a>

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