



# Aviation Investigation Final Report

<b>Location:</b>	SALISBURY, Maryland	<b>Accident Number:</b>	IAD96LA112
<b>Date &amp; Time:</b>	July 11, 1996, 12:33 Local	<b>Registration:</b>	N91493
<b>Aircraft:</b>	Piper PA-38-112	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

During the takeoff roll, the airplane veered to the left and departed the runway. The student pilot stated that his attempt to regain directional control using the right rudder pedal was unsuccessful. The airplane veered off the runway, spun around, and the right main gear collapsed. Postaccident examination revealed that the right main landing gear bolt had failed. The right main landing gear bolt was examined further at the NTSB metallurgical laboratory. The examination revealed that the landing gear bolt failed as a result of tensile overstress.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the student pilot's failure to maintain directional control during the takeoff roll.

## Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

### Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF - ABORTED

Findings

3. TERRAIN CONDITION - GRASS

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Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: TAKEOFF - ABORTED

Findings

4. LANDING GEAR,MAIN GEAR - OVERLOAD

## Factual Information

On July 11, 1996, at 1233 eastern daylight time, a Piper PA-38-112, N91493, veered off the runway during initial takeoff roll on runway 14 at Salisbury-Wicomico County Regional Airport, Salisbury, Maryland. The student pilot was not injured. The airplane sustained substantial damage. Visual meteorological conditions prevailed and a visual flight rules flight plan was filed. The solo instructional flight was conducted under 14 CFR Part 91. The flight originated from Langhorne, Pennsylvania, at 0955, and was departing with an intended destination of Langhorne when the accident occurred.

The student pilot reported that he was attempting to takeoff on runway 14, and as the airplane approached takeoff speed, the airplane began to veer to the left. He said, "...I tried to give it right pedal, the landing gear was just barely touching the ground and was bouncing, I immediately pulled the throttle back when I [saw] I was getting near to the grass. I couldn't manage to correct...the aircraft touched the grass it spun completely around and as it did, it broke off the right main gear... ." At the time of the accident, winds were reported to be out of 060 degrees at 5 knots.

The airplane was examined at the accident site by a Federal Aviation Administration (FAA) Safety Inspector. The Inspector stated that the right main landing gear bolt had failed. The right main landing gear bolt was transported to the NTSB Lab in Washington, DC, for further examination. The examination revealed that the right landing gear bolt failed as a result of tensile overstress.

### Pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	47, Male
<b>Airplane Rating(s):</b>	None	<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 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	October 13, 1994
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	65 hours (Total, all aircraft), 61 hours (Total, this make and model), 15 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N91493
<b>Model/Series:</b>	PA-38-112 PA-38-112	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	38-82A0041
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	September 15, 1995 Annual	<b>Certified Max Gross Wt.:</b>	1670 lbs
<b>Time Since Last Inspection:</b>	94 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4569 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-235-L2C
<b>Registered Owner:</b>	FLYING DUTCHMAN AIR SVC	<b>Rated Power:</b>	112 Horsepower
<b>Operator:</b>		<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>	SBY ,52 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	12:33 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	, MD (SBY )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	LANGHORNE , PA (N54 )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	12:33 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	WICOMICO COUNTY REGIONAL SBY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	52 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5500 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	38.38034,-75.639976(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Drake-nurse, Beverley
<b>Additional Participating Persons:</b>	RAY STINCHCOMB; BALTIMORE , MD
<b>Original Publish Date:</b>	March 31, 1998
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=28079">https://data.ntsb.gov/Docket?ProjectID=28079</a>

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