



# Aviation Investigation Final Report

<b>Location:</b>	BUTLER, Pennsylvania	<b>Accident Number:</b>	NYC83LA222
<b>Date &amp; Time:</b>	August 20, 1983, 21:45 Local	<b>Registration:</b>	N600A
<b>Aircraft:</b>	PIPER PA-22 TRIPACER	<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

THE ACFT RAN OFF THE RWY INTO A 4 FT DITCH AND NOSED OVER WHILE TAXIING. THE PLT SAID THE 'BRAKES GAVE WAY' WHILE HE WASTAXIING DOWN RWY 17 AFTER LANDING. WHEN HE REALIZED THE BRAKES WERE NOT HOLDING HE SHUT OFF THE ENGINE BY THE MIXTURE CONTROL. TO AVOID GOING ONTO A HIWAY THE PLT TURNED LEFT OFF THE SIDE OF THE RWY. THE NOSE GEAR HIT A DITCH AND THE ACFTNOSED OVER. THE BRAKES WERE EXAMINED AFTER THE ACCIDENT AND THEY WERE SOFT AND SPONGY WHEN APPLIED. HYDRAULIC FLUID LEAKED FROM THE VENT HOLE IN THE MASTER CYLINDER. IT WAS FOUND THAT THE DIAPHRAGM HAD SPLIT IN THE CYLINDER CAUSING LOSSOF FLUID AND BRAKING ACTION.

## 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: TAXI - FROM LANDING

#### Findings

1. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - FAILURE,TOTAL

- 2. (C) HYDRAULIC SYSTEM,SEAL - LEAK
- 3. (C) FLUID,HYDRAULIC - LOSS,PARTIAL

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAXI - FROM LANDING

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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: TAXI - FROM LANDING

Findings

- 4. (F) TERRAIN CONDITION - DITCH

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Occurrence #4: NOSE OVER  
Phase of Operation: TAXI - FROM LANDING

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	July 5, 1983
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	78 hours (Total, all aircraft), 78 hours (Total, this make and model), 47 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N600A
<b>Model/Series:</b>	PA-22 TRIPACER PA-22 TRIP	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-3
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 27, 1983 Annual	<b>Certified Max Gross Wt.:</b>	1800 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3700 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-290-D
<b>Registered Owner:</b>	ROBERT J. TAYLOR	<b>Rated Power:</b>	125 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>	Night/bright
<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>	Clear	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	None	<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>	29 inches Hg	<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	BUTLER-ROW 3G9	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1333 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2590 ft / 38 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>	40.860214,-79.88916(est)

## Administrative Information

**Investigator In Charge (IIC):** Taylor, Vernon

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=35259>

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