



# Aviation Investigation Final Report

<b>Location:</b>	EXMORE, Virginia	<b>Accident Number:</b>	ATL83LA023
<b>Date &amp; Time:</b>	November 1, 1982, 14:20 Local	<b>Registration:</b>	N981C
<b>Aircraft:</b>	STINSON 108-3	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

DURING FLIGHT, THE PILOT NOTICED A DECREASE IN OIL PRESSURE AND ELECTED TO LAND AT AN ALTERNATE AIRPORT. WHILE EN ROUTE, A COMPLETE LOSS OF OIL PRESSURE OCCURRED AND THE PILOT EXECUTED AN EMERGENCY LANDING IN AN OPEN FIELD. WHILE ON THE LANDING ROLL, THE AIRCRAFT HIT A SOFT SPOT AND NOSED OVER. AN EXAMINATION OF THE ENGINE REVEALED THERE WAS A DIMPLE AND HOLE IN THE ROCKER BOX COVER OF THE NO 3 CYLINDER. A LOOSE 3/8-24 HEXAGON JAM NUT (FOR THE INTAKE ROCKER ARM ADJUSTING SCREW) WAS FOUND INSIDE THE ROCKER BOX COVER. THE HOLE AND DIMPLE IN THE ROCKER BOX COVER WERE OPPOSITE OF THE EXHAUST ROCKER ARM ADJUSTING SCREW AND MATCHED THE SIZE AND SHAPE OF THE LOOSE NUT.

## 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: CRUISE - NORMAL

#### Findings

1. (C) ENGINE ASSEMBLY, OTHER - LOOSE
2. (C) ENGINE ASSEMBLY, OTHER - PENETRATED

- 3. LUBRICATING SYSTEM - LEAK
- 4. (C) FLUID,OIL - EXHAUSTION

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Occurrence #2: FORCED LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

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Occurrence #3: NOSE OVER  
Phase of Operation: LANDING - ROLL

Findings

- 5. (F) TERRAIN CONDITION - SOFT

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	65, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<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>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 31, 1982
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1359 hours (Total, all aircraft), 1159 hours (Total, this make and model), 1134 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	STINSON	<b>Registration:</b>	N981C
<b>Model/Series:</b>	108-3 108-3	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	61703
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	1200 lbs
<b>Time Since Last Inspection:</b>	8 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2580 Hrs	<b>Engine Manufacturer:</b>	FRNKLIN
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	6A4-165-B3
<b>Registered Owner:</b>	WILLIS G. BROWN	<b>Rated Power:</b>	165 Horsepower
<b>Operator:</b>	WILLIS G. BROWN	<b>Operating Certificate(s) Held:</b>	
<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>	10 miles
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	170°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	70°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	EASTON , MD (C )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	BAYBORO , NC (C )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:20 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	0 ft / 0 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>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	

## Administrative Information

**Investigator In Charge (IIC):**

**Additional Participating Persons:**

**Original Publish Date:** November 1, 1983

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=70640>

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