



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	VERO BEACH, FL	<b>Accident Number:</b>	MIA84FA234
<b>Date &amp; Time:</b>	08/20/1984, 1400 EDT	<b>Registration:</b>	N4371Y
<b>Aircraft:</b>	PIPER PA-46-310P	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious

**Flight Conducted Under:** Part 91: General Aviation - Other Work Use

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## Analysis

ON POST-PRODUCTION TEST FLT, PLT NOTED SYMPTOMS OF UNCOMMANDED LEAN MIXTURE AND TURNED TO RETURN FOR LANDING. EN ROUTE TO AIRPORT, ENG LOST PWR COMPLETELY. ON BASE LEG FOR FORCED LANDING (OFF AIRPORT) FIRE BROKE OUT IN ENG AREA AND BURNED THROUGH HYDRAULIC LINE CAUSING GEAR TO EXTEND. DUE TO INCREASED GLIDE ANGLE, PLANNED FLT PATH WOULD NOT CLEAR OBSTRUCTION (DRAW BRIDGE). WHEN THE PLT MANEUVERED TO AVOID THE OBSTACLE, THE ACFT STALLED, MUSHED AND COLLIDED WITH A BOAT DOCK. INVESTIGATION REVEALED A LOOSE FUEL LINE FITTING.

## Probable Cause and Findings

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

## Findings

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Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE

### Findings

1. (C) FUEL SYSTEM,LINE FITTING - LOOSE
  2. (C) MAINTENANCE,INSTALLATION - IMPROPER - PRODUCTION/DESIGN PERSONNEL
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Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

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Occurrence #3: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

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Occurrence #4: FIRE  
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

### Findings

3. (C) FUEL SYSTEM,LINE FITTING - LEAK
  4. FLUID,FUEL - FIRE
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Occurrence #5: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT

### Findings

5. (F) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - BURNED
6. (F) LANDING GEAR - DEPLOYED INADVERTENTLY
7. PROPER DESCENT RATE - NOT POSSIBLE - PILOT IN COMMAND
8. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)
9. (F) MANEUVER - ATTEMPTED - PILOT IN COMMAND
10. (F) TERRAIN CONDITION - NONE SUITABLE
11. STALL/MUSH - INADVERTENT

## Factual Information

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	27, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	12/19/1983
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2694 hours (Total, all aircraft), 137 hours (Total, this make and model), 1126 hours (Pilot In Command, all aircraft), 252 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N4371Y
<b>Model/Series:</b>	PA-46-310P PA-46-310P	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	46-8408082
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	08/20/1984, AAIP	<b>Certified Max Gross Wt.:</b>	4100 lbs
<b>Time Since Last Inspection:</b>	0 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1 Hours	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	TSIO-520-BE
<b>Registered Owner:</b>	PIPER AIRCRAFT CORPORATION	<b>Rated Power:</b>	310 hp
<b>Operator:</b>	PIPER AIRCRAFT CORPORATION	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	VRB, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1405	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 2000 ft agl	Visibility	7 Miles
Lowest Ceiling:	Broken / 2000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	31° C / 22° C
Precipitation and Obscuration:			
Departure Point:	VERO BEACH, FL (VRB)	Type of Flight Plan Filed:	VFR
Destination:		Type of Clearance:	None
Departure Time:	1350 EDT	Type of Airspace:	Class E

## Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	1 Serious	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).