



# Aviation Investigation Final Report

<b>Location:</b>	MARTINSVILLE, Texas	<b>Accident Number:</b>	FTW83LA146
<b>Date &amp; Time:</b>	March 10, 1983, 12:00 Local	<b>Registration:</b>	N4944M
<b>Aircraft:</b>	PIPER PA-20	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

REPORTEDLY, THE PLT TOOK OFF WITH 36 GALLONS OF FUEL ON BOARD, OF WHICH, 10 GALS WAS AUTOMOBILE LOW LEAD FUEL. THE AUTOMOBILE FUEL HAD BEEN PURCHASED FROM AN OFF AIRPORT GASOLINE STATION, WAS TRANSPORTED TO THE ACFT IN 5 GAL CANS, THEN ADDED TO THE FUEL TANKS WITH A FILTERED SPOUT. THE PLT REPORTED THAT HE BURNED FUEL FROM THE RIGHT TANK UNTIL THE ENGINE QUIT WHILE THE RIGHT GAGE INDICATED APRX 1/4 FULL. HE RESTARTED THE ENGINE & CONTINUED, USING THE LEFT TANK. THE ENGINE LOST POWER AGAIN WHEN THE LEFT FUEL GAGE INDICATE APRX 1/2 FULL. THE ACFT WAS OVER A HILLY & WOODED AREA AT 4500 FT MSL. THE PLT FOUND A SUITABLE AREA FOR AN EMERGENCY LANDING, BUT THE RIGHT WING OF THE ACFT HIT A TREE SHORT OF THE AREA. AN EXAM REVEALED THAT THE GASCOLATOR WAS CLOGGED WITH UNIDENTIFIED CONTAMINANTS. THE GASCOLATOR WAS DRAINED & CHECKED DURING AN ANNUAL INSPECTION, 13 FLT HRS PRIOR TO THE ACCIDENT. BEFORE THE ANNUAL INSPECTION, THE ACFT HAD BEEN IN STORAGE FOR 10 YRS.

## Probable Cause and Findings

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

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLUID,FUEL - CONTAMINATION
2. (C) FUEL SYSTEM,STRAINER - BLOCKED(TOTAL)
3. (C) FLUID,FUEL - STARVATION

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Occurrence #2: FORCED LANDING

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

4. (F) OBJECT - TREE(S)

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	34, 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 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 14, 1981
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	221 hours (Total, all aircraft), 13 hours (Total, this make and model), 188 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N4944M
<b>Model/Series:</b>	PA-20 PA-20	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	20-630
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 7, 1982 Annual	<b>Certified Max Gross Wt.:</b>	1800 lbs
<b>Time Since Last Inspection:</b>	13 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	996 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-320-A2B
<b>Registered Owner:</b>	PHILLIP T. BRIGGS	<b>Rated Power:</b>	150 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>	LFK ,290 ft msl	<b>Distance from Accident Site:</b>	38 Nautical Miles
<b>Observation Time:</b>	11:55 Local	<b>Direction from Accident Site:</b>	208°
<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>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	320°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	14°C / -3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	HOUSTON , TX (T02 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	TEXARKANA , TX (21TX)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<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 Minor	<b>Latitude, Longitude:</b>	31.510395,-94.529632(est)

## Administrative Information

**Investigator In Charge (IIC):** Edwards, Armond

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=20829>

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