



# Aviation Investigation Final Report

<b>Location:</b>	LA PORTE, Texas	<b>Accident Number:</b>	FTW95LA072
<b>Date &amp; Time:</b>	December 24, 1994, 16:36 Local	<b>Registration:</b>	N2820M
<b>Aircraft:</b>	PIPER PA-12	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE ENGINE LOST POWER WITHOUT WARNING WHILE IN CRUISE FLIGHT AT 1,000 FEET. THE PILOT LANDED ON A NARROW DIRT ROAD ON A LEVEE. DURING THE LANDING ROLL, THE MAIN LANDING GEARS SUNK INTO SOFT MUD AND RUTS, AND THE AIRPLANE NOSED OVER COMING TO REST ON ITS BACK. THE PILOT, WHO IS ALSO THE CERTIFICATED MECHANIC THAT HAD RECENTLY REBUILT THE AIRPLANE, STATED THAT PRIOR TO THE FLIGHT, HE FOUND FUEL LEAKING FROM AROUND THE GLASS BOWL IN THE GASCOLATOR ASSEMBLY. THE PILOT ADDED THAT HE RESEATED THE GLASS BOWL AND SECURED THE LOCKING SCREW WITH SAFETY WIRE. EXAMINATION OF THE WRECKAGE REVEALED THAT THE GASCOLATOR GLASS BOWL WAS MISSING, RESULTING IN THE FUEL STARVATION OF THE ENGINE.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER DUE TO FUEL STARVATION AS RESULT OF THE FAILURE OF THE GLASS BOWL ON THE GASCOLATOR. A FACTOR WAS THE LACK OF SUITABLE TERRAIN AT THE PILOT'S DISPOSAL TO EXECUTE A FORCED LANDING.

## Findings

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

Findings

1. (C) FUEL SYSTEM,STRAINER - FAILURE,TOTAL
2. (C) FLUID,FUEL - STARVATION

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE

## Factual Information

On December 24, 1994, at 1636 central standard time, a Piper PA-12, N2820M, was substantially damaged during a forced landing near La Porte, Texas. The private pilot sustained minor injuries, while his two passengers were not injured. Visual meteorological conditions prevailed for the personal flight.

According to the pilot, the airplane departed the La Porte Municipal Airport (T41) en route to Baytown, Texas. While in cruise flight at approximately 800 to 1,000 feet above the the ship channel, the engine lost power without warning. The pilot added that he elected to land on a narrow dirt road on a levee approximately 4 miles northeast of the airport. During the landing roll, the main wheels sank into soft mud, the landing gear collapsed, and the airplane nosed over to the inverted position.

The 1946 model airplane had accumulated 54 hours since the airplane was completely rebuilt by the pilot. Prior to the flight, the pilot stated that he found fuel leaking from around the glass bowl in the gascolator/strainer assembly. He further stated that he reseated the glass bowl and secured it with safety wire.

The pilot, who is also an FAA certificated airframe/powerplant mechanic with inspection authority, performed a post accident examination of the wreckage at the accident site. Examination of the gascolator assembly, part number 750-268, revealed a fracture at the "T" fitting where the nut is threaded upwards to hold the bowl in place. The glass gascolator was not recovered, but the safety wire remained in place.

The pilot suspects that the glass bowl might have also cracked during installation and fallen off during flight resulting in the fuel starvation of the engine.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	31, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Front
<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>	September 29, 1994
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	339 hours (Total, all aircraft), 35 hours (Total, this make and model), 305 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N2820M
<b>Model/Series:</b>	PA-12 PA-12	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	12-1172
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	June 15, 1994 Annual	<b>Certified Max Gross Wt.:</b>	1750 lbs
<b>Time Since Last Inspection:</b>	54 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1543 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320-A2A
<b>Registered Owner:</b>	FLYNT, GARY J.	<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>	EFD ,20 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	16:36 Local	<b>Direction from Accident Site:</b>	240°
<b>Lowest Cloud Condition:</b>	Scattered / 12000 ft AGL	<b>Visibility</b>	11 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	10°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	12°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	, TX (T41 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	BAYTOWN , TX (HPY )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	16:30 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>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 2 None	<b>Latitude, Longitude:</b>	29.65978,-95.03936(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Casanova, Hector
<b>Additional Participating Persons:</b>	JIM G HOPPE; HOUSTON , TX
<b>Original Publish Date:</b>	March 27, 1995
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=19326">https://data.nts.gov/Docket?ProjectID=19326</a>

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