



# Aviation Investigation Final Report

<b>Location:</b>	CARLSBAD, New Mexico	<b>Accident Number:</b>	FTW95LA131
<b>Date &amp; Time:</b>	February 25, 1995, 23:58 Local	<b>Registration:</b>	N5613P
<b>Aircraft:</b>	PIPER PA-24-250	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

AFTER 4 HOURS OF DARK NIGHT CROSS COUNTRY FLIGHT, THE ENGINE LOST POWER AND THE PILOT LANDED THE AIRPLANE GEAR UP IN A FIELD. EN ROUTE, THE PILOT NOTED THE FUEL GAUGES READING 'LOWER THAN NORMAL,' BUT ELECTED TO CONTINUE TO THE DESTINATION AS HIS 'CALCULATIONS SHOWED WE COULD MAKE IT WITH FUEL TO SPARE.' THE AIRCRAFT WAS REFUELED PRIOR TO DEPARTURE AND THE PILOT ESTIMATED A TIME EN ROUTE OF 4.1 HOURS WITH A TOTAL OF 5.3 HOURS OF FUEL ON BOARD. FOLLOWING THE FORCED LANDING, THE PILOT EXAMINED 'THE GASCOLATOR AND, FINDING NO FUEL IN THE BOWL, CONCLUDED THE QUICK DRAIN HAD BEEN LEAKING SINCE HE CHECKED THE FUEL PRIOR TO DEPARTURE.'

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FUEL EXHAUSTION ENGINE POWER LOSS DUE TO A LEAK IN THE FUEL SYSTEM. FACTORS WERE DARK NIGHT CONDITIONS AND THE LACK OF SUITABLE TERRAIN FOR THE FORCED LANDING.

## Findings

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

Findings

1. (C) FUEL SYSTEM,DRAIN - LEAK
2. (C) FLUID,FUEL - EXHAUSTION

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. (F) LIGHT CONDITION - DARK NIGHT
4. (F) TERRAIN CONDITION - NONE SUITABLE

## Factual Information

On February 25, 1995, at 2358 mountain standard time, a Piper PA- 24-250, N5613P, was substantially damaged during a forced landing near Carlsbad, New Mexico. The commercial pilot sustained minor injuries. The private pilot rated passenger was not injured. Dark night visual meteorological conditions prevailed for the personal cross-country flight.

Prior to departing Texarkana, Arkansas, for Carlsbad, the pilot refueled the airplane and calculated an estimated time en route of 4.1 hours with a total of 5.3 hours of fuel on board. These figures are consistent with the performance charts found in the Piper PA-24 Owner's Handbook. The pilot stated that he "noted [fuel] gauges reading lower than normal north of Andrews, Texas" and "was planning a fuel stop in Hobbs if necessary." At this time he checked the weather at Hobbs and found that it was "IFR" with a thunderstorm in progress. The pilot "thought it best to continue to Carlsbad as my calculations showed we could make it with fuel to spare."

About 10 miles northeast of Carlsbad, approximately four hours into the flight, the engine lost power. After attempting unsuccessfully to restart the engine, the pilot tried to identify a local highway to land on, "but as it was almost midnight local time, there was no traffic on the road" and he was unable to see it. He then "aimed for a dark area" and landed the airplane gear up in a field. Damage to the airplane included deformation of the lower firewall. The pilot examined the gascolator and found no fuel in the bowl. He "concluded that we had a leak [in the quick drain] after the fuel was checked in Texarkana and it continued to leak for the entire trip, causing at least a 12-gallon loss of fuel."

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	November 10, 1994
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1404 hours (Total, all aircraft), 420 hours (Total, this make and model), 1270 hours (Pilot In Command, all aircraft), 91 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N5613P
<b>Model/Series:</b>	PA-24-250 PA-24-250	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	24-681
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	February 23, 1995 Annual	<b>Certified Max Gross Wt.:</b>	2800 lbs
<b>Time Since Last Inspection:</b>	8 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4453 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-540-A1C5
<b>Registered Owner:</b>	GUTIERREZ, ALBERTO H.	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>	FOUCAULT, JAMES F.	<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/dark
<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>	Scattered / 2200 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	80°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	17°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	TEXARKANA , AR (TXK )	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	(CNM )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:56 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>	
<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>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	32.400604,-104.2304(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Ellis, Matthew
<b>Additional Participating Persons:</b>	MANUEL G LOPEZ; ALBUQUERQUE , NM
<b>Original Publish Date:</b>	August 23, 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=19363">https://data.nts.gov/Docket?ProjectID=19363</a>

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