



# Aviation Investigation Final Report

<b>Location:</b>	SHADY SIDE, Maryland	<b>Accident Number:</b>	BF096LA014
<b>Date &amp; Time:</b>	October 22, 1995, 18:05 Local	<b>Registration:</b>	N5744Q
<b>Aircraft:</b>	MOONEY M20E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that the airplane was in cruise flight at 1,400 feet MSL when the engine lost partial power. All attempts to regain engine power were unsuccessful. During the forced landing to a field the airplane collided with trees. Postaccident examination of the airplane revealed no evidence of preimpact mechanical malfunction. The left fuel tank was found empty, and the right fuel tank was half full. The engine operated satisfactorily during a test run; however, it was noted that fuel was leaking from the fuel line between the engine driven fuel pump and the fuel injector. Further examination of the fuel line revealed it was brittle.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the partial loss of engine power due to a leaking fuel line.

### Findings

Occurrence #1: LOSS OF ENGINE POWER  
Phase of Operation: CRUISE - NORMAL

#### Findings

1. (C) FUEL SYSTEM,LINE - LEAK

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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. OBJECT - TREE(S)

## Factual Information

On October 22, 1995, at 1805 eastern daylight time, a Mooney M20E, N5744Q, lost engine power and made a forced landing in a bean field near Shady Side, Maryland. The certificated private pilot and the passenger were not injured. The aircraft sustained substantial damage. The aircraft was being operated as a personal flight under 14 CFR 91 when the accident occurred. Visual meteorological conditions prevailed and a flight plan was not filed. The flight originated from Easton, Maryland, at approximately 1750. The intended destination was Freeway Airport, in Mitchellville, Maryland.

The pilot reported that he completed his preflight inspection satisfactorily. He stated that the aircraft was at an altitude of 1400 feet Mean Sea Level (MSL) when the engine lost partial power. He stated that all attempts to regain engine power were unsuccessful. The pilot stated that he "...set up for a forced landing in an open field but did not have sufficient altitude/airspeed to clear the tree tops bordering the field." The airplane collided with trees during the forced landing.

The airplane was examined at the accident site by an FAA Safety Inspector. The examination revealed that the left fuel tank was empty, and the right fuel tank was half full. The fuel selector was found selected to the right tank. The pilot reported that he switched back to the right tank. The airplane engine was removed and transported to T. S. Alphin Aircraft in Hagerstown, Maryland, for a test run.

The engine operated satisfactorily during the test run. During the test run the engine attained 27 inches of manifold pressure and 2700 rpm. During the engine test run, investigators noted that the line from the fuel pump to the fuel injector line was leaking fuel. Further examination of the fuel injector line revealed that it was brittle.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<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-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	August 27, 1994
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	533 hours (Total, all aircraft), 460 hours (Total, this make and model), 450 hours (Pilot In Command, all aircraft), 44 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MOONEY	<b>Registration:</b>	N5744Q
<b>Model/Series:</b>	M20E M20E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	765
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 3, 1995 Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	33 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5460 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360-A1A
<b>Registered Owner:</b>	FOUAD A. AL-JINABI	<b>Rated Power:</b>	200 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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	EASTON , MD (ESN )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	MITCHELLVILLE , MD (W00 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:50 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 None	<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>	2 None	<b>Latitude, Longitude:</b>	38.830165,-76.520919(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Drake-nurse, Beverley
<b>Additional Participating Persons:</b>	DALE ALLEN; DULLES , VA
<b>Original Publish Date:</b>	April 18, 1996
<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=9107">https://data.nts.gov/Docket?ProjectID=9107</a>

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