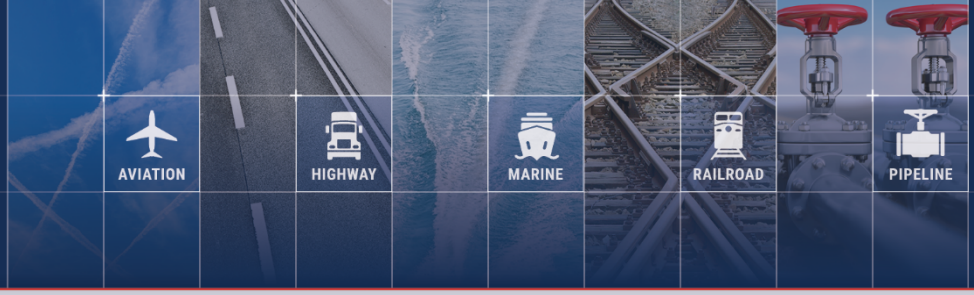

Aviation Investigation Final Report

Location:	JACKSON, Mississippi	**Accident Number:**	MIA99LA162
Date & Time:	June 5, 1999, 11:50 Local	**Registration:**	N78HR
Aircraft:	Piper PA-38-112	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While on final approach at 500 feet, the engine lost all power. Attempts to restart it were unsuccessful, and while attempting a forced landing, the airplane collided with a fence and a guy wire. Postcrash examination of the engine by an FAA inspector showed the carburetor was contaminated with rust, a small amount of water, and dirt. The carburetor fuel shutoff valve seat was corroded, and the shutoff valve seat was not seating, allowing the carburetor bowl to overfill and flood the engine.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to contamination and corrosion of the carburetor, and inadequate inspection of the carburetor by maintenance personnel.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
1. (C) FUEL SYSTEM,CARBURETOR - CONTAMINATION
2. (C) MAINTENANCE,INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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

Findings
3. OBJECT - FENCE
4. OBJECT - GUY WIRE

Factual Information

On June 5, 1999, about 1150 central daylight time, a Piper PA-38-112, N78HR, registered to an individual, made a forced landing in a field following loss of engine power at Jackson, Mississippi, while on a Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft received substantial damage and the private-rated pilot was not injured. The flight originated from Amory, Mississippi, the same day, about 1000.

The pilot stated that while at about 500 feet on final approach to land at Jackson International Airport, the engine quit. The engine did not sputter, hesitate, or misfire, before quitting. Attempts to restart the engine were unsuccessful. He turned to the left and nosed down toward a clear area. He landed at a high speed and as the aircraft approached a fence at the end of the field, he pulled up in an attempt to fly over the fence. The main landing gear contacted the fence and turned the aircraft into a guy wire. After hitting the guy wire the aircraft crashed to the ground and came to rest.

After the accident, an FAA inspector went to the scene and had the pilot start the engine. The engine started, and after idling for about 30 seconds, the engine was shut down. After the aircraft was recovered from the crash site, another FAA inspector examined the aircraft and engine. The carburetor bowl drain plug was removed and the bowl did not contain any water. The plug was reinstalled and the engine was started. After about 15 seconds of operation, the carburetor began to run fuel out of the inlet. The engine was shut down and the electric boost pump was turned on. The carburetor again ran fuel out of the inlet. The carburetor was disassembled and a large amount of rust, dirt, and a small amount of water was found in the bowl. The shutoff valve seat, metering jet, and mixture control seat were found to be corroded.

Pilot Information

Certificate:	Private	**Age:**	54,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	August 7, 1998
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1998 hours (Total, all aircraft), 179 hours (Total, this make and model), 1940 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N78HR
Model/Series:	PA-38-112 PA-38-112	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	38-78A0758
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	November 13, 1998 100 hour	**Certified Max Gross Wt.:**	1670 lbs
Time Since Last Inspection:	13 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4310 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-235-L2C
Registered Owner:	JERRY E. WEEKS	**Rated Power:**	112 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	JAN ,346 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	12:54 Local	**Direction from Accident Site:**	160°
Lowest Cloud Condition:	Clear	**Visibility**	8 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	100°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	32°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	AMORY , MS (M40)	**Type of Flight Plan Filed:**	None
Destination:	(JAN)	**Type of Clearance:**	VFR
Departure Time:	10:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	32.260601,-90.09066(est)

Administrative Information

Investigator In Charge (IIC):	Kennedy, Jeffrey
Additional Participating Persons:	CHUCK WHITTINGTON; JACKSON , MS HAROLD E AYCOCK; JACKSON , MS
Original Publish Date:	June 22, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46483