Aviation Investigation Final Report

Location:	CLINTON, Maryland	**Accident Number:**	IAD96LA082
Date & Time:	May 22, 1996, 19:17 Local	**Registration:**	N2594B
Aircraft:	Piper PA-38-112	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the aircraft was about 60 feet above the ground on takeoff when it lost engine power. He performed a forced landing in a horse pasture beyond the departure end of the runway. An FAA Inspector witnessed the accident from the departure airport and performed an on-scene investigation. He stated '... that there was less than 1 gallon of fuel in either fuel tank.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to assure that an adequate supply of fuel was available for the flight. Related factors were the pilot's inadequate airplane preflight inspection and the unsuitable terrain (horses, fence, house, barn, trees) encountered during the landing roll.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (F) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings
4. (F) TERRAIN CONDITION - NONE SUITABLE
5. OBJECT - ANIMAL(S)

Factual Information

On May 22, 1996, at 1917 eastern daylight time, a Piper PA-38-112, N2594B, sustained substantial damage when it collided with terrain during a forced landing after takeoff from Washington Executive/Hyde Field in Clinton, Maryland. The certificated private pilot, the sole occupant, received serious injuries. Visual meteorological conditions prevailed at the time of the accident, no flight plan was filed. The flight was conducted under 14 CFR 91. The airplane departed Washington Executive/Hyde Field at 1915, for a local flight.

The pilot reported that earlier in the day he had flown the airplane for approximately 40 minutes with no problems noted. He returned to Washington Executive/Hyde Field for an engine oil and filter change. The pilot stated that throughout the subsequent engine start, taxi, engine run-up and takeoff/initial climb the "...instruments looked good." The pilot stated that when the airplane was at approximately 60 feet above the ground, the engine "...just died... ." He described the power loss as "...gentle, very smooth." The pilot reported that as he performed emergency procedures, the engine restarted and produced power briefly, then lost power completely. The airplane collided with terrain in a horse pasture approximately one-half mile from the airport during the subsequent forced landing.

A Federal Aviation Administration (FAA) Aviation Safety Inspector was at Washington Executive/Hyde Field, working on his personal aircraft when he witnessed the accident. The FAA Inspector/witness reported, "The aircraft departed runway 23 ... approximately 20 to 30 feet altitude above the runway the engine made noises to indicate that the engine was quitting, the nose of the aircraft was lowered and the engine noises returned to normal operating sounds and the aircraft began to climb. Moments later the engine noises again indicated that the engine was quitting and the aircraft made an emergency landing in the field adjacent to the departure end of runway 23." In addition, the Inspector/witness stated, "The aircraft came to rest in an upright position headed approximately 90 degrees to the right of the departure flight path. The pilot stated that just prior to touchdown he turned to the right to avoid hitting some horses... The right wing was sitting flat, parallel to and only several inches off the ground. I stuck a pencil inside and to the bottom of the right fuel tank with the eraser resting on the bottom of the tank. There was only enough fuel in the tank to cover the eraser (approximately 1/4 inch). A visual inspection of the inside of both fuel tanks revealed in my opinion, that there was less than 1 gallon of fuel in either fuel tank. There was sufficient daylight and adequate view points to allow me to observe the fuel quantity in each fuel tank. The tank fuel drains and the sump drain functioned normally with no fuel leakage. There was no fuel leakage on the ground or any indication of fuel leakage from any part of the aircraft fuel system. The Hyde Field airport manager ... and a sergeant from the Prince George's Police Department observed my fuel checks."

When asked if he performed a preflight of the aircraft, the pilot stated that he took a fuel

sample prior to the first flight of the day. The pilot stated that the airplane was most recently refueled by a fixed base operator at Hyde Field on May 21, 1996, and took "...15 gallons per side... ." A review of that operator's fuel sales records indicated that no fuel was dispensed into the accident airplane on May 21, 1996. Further review revealed a fuel purchase for the accident airplane on May 20,1996, when the operator dispensed a total of five (5) gallons of fuel into the accident airplane. Postaccident examination of the aircraft revealed no evidence of preimpact mechanical malfunction.

Pilot Information

Certificate:	Private	**Age:**	51,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 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 8, 1994
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	310 hours (Total, all aircraft), 80 hours (Total, this make and model), 260 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N2594B
Model/Series:	PA-38-112 PA-38-112	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	38-79A0141
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	July 31, 1995 Annual	**Certified Max Gross Wt.:**	1670 lbs
Time Since Last Inspection:	34 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-235-L2C
Registered Owner:	CLIFFORD C. BLEND	**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:	ADW ,281 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	22:55 Local	**Direction from Accident Site:**	48°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	**Visibility**	7 miles
Lowest Ceiling:	Broken / 7500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	27°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, MD (W32)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	19:15 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	WASHINGTON EXECUTIVE ARPT W32	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	38.760341,-76.890037(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	DON KAGLE; WASHINGTON , DC
Original Publish Date:	February 18, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=28054