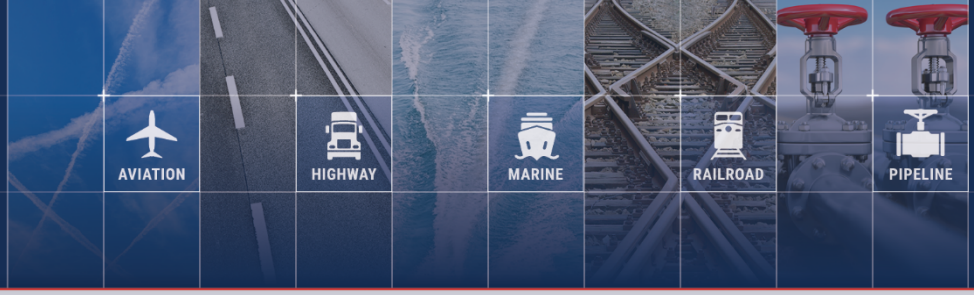

Aviation Investigation Final Report

Location:	GAINESVILLE, Georgia	**Accident Number:**	ATL99FA122
Date & Time:	September 3, 1999, 18:30 Local	**Registration:**	N4072H
Aircraft:	Mooney M20J	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Witnesses near the accident site recall observing the airplane in level flight at approximately 2000 feet above the ground. Other witnesses near the accident site reported hearing the engine lose power and then regain power, but are unclear as to whether the engine lost power a second time before colliding with the ground. They then observed the airplane pitch up and then spiral nose-down until it collided with the ground. Examination of the accident site revealed that the airplane rested on the ground in a nose low attitude. Debris from the airplane was scattered within an area 60 feet square. The engine and propeller assemblies were buried several inches into the ground. Examination of the engine assembly and the airframe failed to disclose a mechanical malfunction or a component failure.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain flying speed which resulted in a stall and the subsequent collision with terrain.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CRUISE

Findings
1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND

2. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On September 3, 1999, at 1830 eastern daylight time, a Mooney M20J, N4072H, collided with the ground following a reported loss of engine power near Gainesville, Georgia. The airplane was operated by the private pilot under the provisions of Title 14 CFR Part 91, and visual flight rules. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed. The airplane was destroyed and the private pilot, student pilot, and passenger sustained fatal injuries. The flight departed Atlanta, Georgia, at approximately 1816.

Witnesses near the accident site recall observing the airplane in level flight at approximately 2,000 feet above the ground. Other witnesses near the accident site reported hearing the engine lost power and then regain power, but are unclear as to whether the engine lost power a second time before colliding with the ground. They then observed the airplane pitch up and then spiral nose-down until it collided with the ground.

The purpose for the flight was not determined, however according to the other partner of the airplane, he thought the pilot was attempting to sell his part of the airplane ownership.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with single engine land and, with an instrument rating. The pilot's total flight time in the Mooney was not determined, however the pilot total flying time was 3500 hours. According to the Federal Aviation Records, the pilot's most recent medical certificate was a third class medical issued on December 18, 1997. There were with no waivers or limitations on the pilot's medical certificate.

A review of Federal Aviation Administration airmen records also showed that the passenger in the right front seat was a student pilot. The records also showed that the student had accumulated 6 hours of flying time. The student pilot had a third class medical certificate dated November 27, 1997.

AIRCRAFT INFORMATION

The Mooney M20J, N4072H, was a four place, low wing, single engine airplane. The airplane was powered by a Lycoming IO-360-A3B6D fuel injected engine. The airplane was last inspected on June 01, 1999; the airplane had flown approximately 39 hours since the last annual inspection. The airplane was

METEOROLOGICAL INFORMATION

Visual meteorological conditions prevailed at the time of the accident. The surface weather observation from Dekalb -Peachtree Airport at the approximate time of the accident showed clear skies with ten miles visibility. The winds were 270 degrees at seven knots. The temperature/dew point was 84 and 63 degrees respectively. The altimeter setting was 29.96 inches.

WRECKAGE AND IMPACT INFORMATION

Examination of the accident site revealed that the airplane came to rest on the ground in a nose low attitude. The airplane was located in a wooded area about 200 feet from the edge of a paved road in a newly developed subdivision. Examination of the accident site also revealed that wreckage debris from the airplane was scattered within an area 60 by 60 feet. Additionally, there were several freshly broken tree branches in the immediate vicinity of the wreckage debris. Further examination of the accident site also revealed that the engine and propeller assemblies were buried several inches into the ground.

Both wing assemblies were located in their respective positions. The inboard section of the left wing leading edge was crushed aft perpendicular to the forward wing spar. The outboard section of the left wing upper skin was torn on a line from the inboard edge of the left aileron assembly to the leading edge of the wing. The rivets in the vicinity of the fuel tank were popped. The right wing also sustained similar structural damage as the left wing.

The examination of the cockpit and cabin areas disclosed that the both compartments had sustained extensive crushing damage. Both compartments were torn open exposing the interior to the ambient conditions. The empennage section sustained crushing and twisting damage. The flight control surfaces were located in the immediate vicinity of the main wreckage. Control surface cables and attach fittings, pulleys and were examined.

The engine assembly was subsequently removed from the accident site for additional examination. The teardown examination of the engine revealed that the accessory section components were severely damaged and prevented a complete examination. Examination of the fuel system revealed that a residual amount of clean aviation fuel was in the fuel injector. Examination of the spark plugs showed that combustion deposits were present in each spark plug and each spark plug was dry.

Examination of the engine assembly and the airframe failed to disclose a mechanical malfunction or a component failure.

MEDICAL AND PATHOLOGICAL INFORMATION

On September 4, 1999, the postmortem examination on the pilot was performed by Dr. A. L. Falzon at the Georgia Bureau of Investigation Division of Forensic Science in Atlanta, Georgia. The toxicological examinations showed 20 (mg/dl, mg/hg) of ethanol detected in muscle fluid,

however according to the Manager of the FAA Research Laboratory in Oklahoma City, Oklahoma, the ethanol in this case is from postmortem ethanol and not from the ingestion of ethanol. The toxicological examinations were negative for other drugs.

ADDITIONAL INFORMATION

The aircraft wreckage was released to Mr. Harry Brooks, insurance adjuster, located in Atlanta, Georgia.

Pilot Information

Certificate:	Private	**Age:**	55,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	December 18, 1997
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	3500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	N4072H
Model/Series:	M20J M20J	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-1051
Landing Gear Type:	Retractable - Tricycle	**Seats:**	0
Date/Type of Last Inspection:	June 1, 1999 Annual	**Certified Max Gross Wt.:**	2740 lbs
Time Since Last Inspection:	39 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2944 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360 A3B6D
Registered Owner:	R & D AVIATION CORP.	**Rated Power:**	200 Horsepower
Operator:	CHARLES H. YESSICK	**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:	PDK ,1002 ft msl	**Distance from Accident Site:**	28 Nautical Miles
Observation Time:	19:00 Local	**Direction from Accident Site:**	210°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**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:**	29°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ATLANTA , GA (PDK)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	18:16 Local	**Type of Airspace:**	

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	2 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 Fatal	**Latitude, Longitude:**	34.350917,-83.899604(est)

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	ANTHONY BROWN; COLLEGE PARK , GA
Original Publish Date:	January 18, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=47290