



# **Aviation Investigation Final Report**

Location: LaFayette, Georgia Accident Number: ATL03LA042

Date & Time: February 8, 2003, 12:47 Local Registration: N1415C

Aircraft: Cessna 182 Aircraft Damage: Substantial

**Defining Event:** 2 Minor

Flight Conducted Under: Part 91: General aviation - Personal

#### **Analysis**

According to the pilot, after takeoff he began to notice a slight loss of engine power. The pilot stated that, "the engine's power reduced to about 50 percent of full power and he immediately leveled off and began to look for an open field" for a forced landing. The airplane collided with the roof of a residence. Examination of the wreckage revealed that the engine operated intermittently. Several engine runs were achieved. The duration of the engine runs varied between 15 seconds to 10 minutes

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: In flight loss of engine power for undetermined reasons.

### **Findings**

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

**Findings** 

1. REASON FOR OCCURRENCE UNDETERMINED

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

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

Findings 2. OBJECT - RESIDENCE

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#### **Factual Information**

On February 8, 2003, at 1247 eastern standard time, a Cessna 182, N1415C, registered to, and operated by Mountain Air Inc., collided with the roof of a residence following a loss of engine power shortly after takeoff. The flight originated from the Lafayette Barwick Airport, in Lafayette, Georgia. The personal flight operated under the provisions of Title 14 CFR Part 91. Visual meteorological conditions prevailed and no flight plan was filed. The pilot and passenger received minor injuries. There were no ground injuries, and the airplane sustained substantial damage. The flight departed Lafayette Barwick Airport, Lafayette, Georgia, on February 8, 2003 at 1245.

The intended destination of the flight was to Blairsville, Georgia. According to the pilot, after takeoff he began to notice a slight loss of engine power. The pilot made the decision to continue climbing at a reduced rate of climb. The pilot stated that, "the engine's power reduced to about 50 percent of full power and he immediately leveled off and began to look for an open field". According to the pilot the airplane attained a maximum altitude of 150 feet above ground level.

The pilot further stated that he could not maintain altitude and attempted a forced landing between two trees. As the pilot maneuvered for a forced landing, the main landing gear of the airplane clipped trees. Subsequently the airplane nosed down and collided into the roof of a residence. The occupants of the house were uninjured. The pilot and passenger exited the airplane from the rear window on to the roof of the house as rescue personnel arrived.

During the on scene examination of the wreckage site, all of the airplane flight control components were located at the accident site and examined. The engine and propeller remained attached to the airframe. One propeller blade had leading edge gouges on the propeller tip. The other propeller blade was bent aft with chordwise scratches on the aft side of the propeller blade. The propeller blade had an "S" bend on the outboard section. The right main gear had crush damage, which left the gear pushed aft. The engine cowling and the right side of the fuselage were buckled. The firewall was damaged. The airplane was further examined on February 9, 2003. Examination of the wreckage revealed that the engine operated intermittently.

The examination of the engine assembly disclosed that the right engine mount was broken and the left engine mount was intact. The engine was secured to the for a functional engine run. Fuel was provided from a plastic tank through the left aft fuel tank supply line. It was noted that prior to starting the engine, the throttle would operate to the idle stop, but not to the full throttle stop. The throttle valve was open. The throttle control did not have a springback and it would only extend aft one inch. The accelerator pump sprayed fuel when the throttle control was pumped. The throttle cable was disconnected from the throttle arm so the complete

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control of the throttle was available.

Several engine runs were achieved. During each engine run, the engine made an uncommanded stop. The duration of the engine runs varied between 15 seconds to 10 minutes. During the examination, a fuel flow check was performed at the line to the carburetor. The fuel can hose was found to be kinked and then was replaced. The fuel bowl was removed and contained fuel. The floats were white plastic and operated freely. The carburetor was reassembled then replaced.

At this time the airbox was removed. The magnetos were checked at 1500 RPM. There was a 50-RPM drop between the two magnetos. The top spark plugs were removed. The electrodes of the top spark plugs were dark black and had a sooty appearance.

#### **Pilot Information**

Certificate:	Private	Age:	58,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 Without waivers/limitations	Last FAA Medical Exam:	January 4, 2002
Occupational Pilot:	No	Last Flight Review or Equivalent:	June 19, 2002
Flight Time:	123 hours (Total, all aircraft), 37 hours (Total, this make and model), 55 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

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### **Aircraft and Owner/Operator Information**

Aircraft Make:	Cessna	Registration:	N1415C
Model/Series:	182	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18266892
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 30, 2002 Annual	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:	52 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2769.2 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	O-47-O-U 23B
Registered Owner:	Mountain Air Inc.	Rated Power:	235 Horsepower
Operator:		Operating Certificate(s) Held:	None

# Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	RMG,644 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	120°
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.29 inches Hg	Temperature/Dew Point:	3°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LaFayette, GA (9A5)	Type of Flight Plan Filed:	None
Destination:	Blairsville, GA (46A )	Type of Clearance:	None
Departure Time:	12:45 Local	Type of Airspace:	Class G

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# **Airport Information**

Airport:	Barwick LaFayette 9A5	Runway Surface Type:	Asphalt
Airport Elevation:	777 ft msl	Runway Surface Condition:	Dry
Runway Used:	2	IFR Approach:	None
Runway Length/Width:	5412 ft / 50 ft	VFR Approach/Landing:	None

# Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	34.692779,-85.294723

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#### **Administrative Information**

Investigator In Charge (IIC): Wilson, Ralph

Additional Participating Persons:

Original Publish Date: June 30, 2004

Last Revision Date:

Investigation Class: Class

Note:

Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=56458

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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