



National Transportation Safety Board Aviation Accident Final Report

Location:	Black Mountain, NC	Accident Number:	MIA01FA193
Date & Time:	07/21/2001, 1707 EDT	Registration:	N396PM
Aircraft:	Piper PA-46-350P	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot had left the airplane at Asheville on the day before the accident due to low cloud ceilings and visibility at Mountain Air Airport, his destination, and completed the trip by rental car. On the day of the accident the pilot returned the rental car and at 1656 departed Asheville in N396PM, enroute to Mountain Air Airport, 27 miles north of Asheville. The last radio contact with the pilot was at 1701:44, when the pilot told controllers at Asheville that he was in visual flight rule conditions, at 4,000 feet. The last radar contact with the flight was by FAA Atlanta Center, at 1704:00, when the flight was about 5 miles south of the accident site at 3,800 feet. The flight did not arrive at the destination, an emergency locator transmitter signal was received by satellite, and search and rescue operations were begun. The pilot and the wreckage of the airplane was located the next day about 1400. The airplane had collided with 75-foot tall trees, at about the 4,800-foot msl level on the side of Bullhead Mountain, while in a wings level attitude, while on a 170 degree heading. After the initial impact the airplane continued for another 300 feet, causing general breakup of the airplane. The main wreckage came to rest on a northerly heading. All components of the airplane were located at the crash site and there was no evidence of precrash failure or malfunction of the airplane structure, flight controls, airplane systems, engine, or propeller. A witness reported that the weather near the time of the accident on the Blue Ridge Parkway, located about 3/4 mile to the west of the crash site, was very foggy. Satellite images show clouds were present at the crash site and the Asheville airport, located 20 miles south-southwest of the crash site, reported overcast clouds 2,600 feet agl or 4,765 feet msl, and visibility 4 miles in haze, at the time of the accident. An Airmet for mountain obscuration due to clouds, mist, and haze was in effect at the time the pilot departed and the at the time of the accident. No record to show that the pilot received a weather briefing from a FAA Flight Service Station was found.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued VFR flight into IMC conditions resulting in the airplane colliding with mountainous terrain.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CRUISE

Findings

1. WEATHER CONDITION - LOW CEILING
2. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND
3. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

History Of The Flight

On July 21, 2001, about 1707 eastern daylight time, a Piper PA-46-350P, N396PM, registered to Malibu, Inc., crashed on Bullhead Mountain, near Black Mountain, North Carolina, while on a 14 CFR Part 91 personal flight. Instrument meteorological conditions prevailed at the time and no flight plan was filed. The airplane was destroyed and the commercial-rated pilot was fatally injured. The flight originated from Asheville, North Carolina, the same day, about 1656.

A friend of the pilot stated she and the pilot departed Atlanta, Georgia, on July 20, 2001, about 1500. The planned destination was Mountain Air Airport, Burnsville, North Carolina. When they arrived in the Asheville, North Carolina, area about 1630, the mountains in the area of Mountain Air Airport were obscured by clouds. They landed at Asheville and waited about 30 minutes. They took off again, and the mountains were still obscured. They returned to Asheville and took a rental car to Burnsville. The pilot did not obtain a weather briefing on July 21, 2001, while at Burnsville, that she knew about. He departed about 1500, on the afternoon of July 21, 2001, to return the rental car to Asheville and bring the airplane back to Mountain Air Airport. The weather was clear when he left Burnsville. She waited for him at the Mountain Air Airport. When he did not arrive, she reported him missing to personnel at the FAA Asheville Control Tower, about 1800. The Air Force Rescue Coordination Center received an emergency locator transmitter signal at position 35 degrees, 44.8 minutes, north latitude and 082 degrees, 8.5 minutes, west longitude, at 1910. Search and rescue operations were initiated and the wreckage of N396PM and the pilot were located on July 22, 2001, about 1400. (See Witness Statement and Search and Rescue Report.)

Transcripts of communications between controllers at the FAA, Asheville Approach Control, and the pilot of N396PM, showed that at 1652:35, the pilot requested permission to taxi, stating he was visual flight rules northbound. The local controller instructed the pilot to taxi to runway 16. At 1655:30, the pilot reported he was ready for takeoff, and the local controller cleared the pilot for takeoff. At 1657:04, the pilot made contact with the departure controller, stating he was climbing through 2,800 feet msl, going to 3,000 feet msl. The approach controller responded to the pilot, stating the flight was radar contact and that a left turn on course was approved. At 1701:44, the departure controller reported that radar contact was lost and for the pilot to change to transponder code 1200 and that radio frequency change was approved. The pilot responded that he was in visual flight rules conditions at 4,000 feet msl. No further transmissions were received from the pilot. (See transcripts of communications.)

Recorded radar data from the FAA Asheville Approach Control showed the flight was observed on radar at 1656:53, at 2,447 feet msl, at a ground speed of 94 knots. At 1701:04, the flight is observed on radar at a position 8.6 nautical miles from the airport on a 56 degree azimuth, at 3,847 feet msl, at a ground speed of 168 knots. This was the last radar contact with the FAA Asheville Approach Control. Recorded radar data from the FAA Atlanta Air Route Traffic Control Center, showed that the flight continued northbound and was last observed on radar at 1704:00, at position 35 degrees, 38 minutes, 30 seconds, north latitude, and 082 degrees, 20 minutes, 13 seconds, west longitude, or about 5 miles south of the accident site. The flight still had transponder code 0226 displayed, and was at an altitude of 3,800 feet msl. (See radar data.)

Personnel Information

The pilot, age 54, held a FAA commercial pilot certificate, with airplane single engine land, airplane multiengine land, and instrument airplane ratings, last issued on July 17, 1997, when the airplane multiengine land rating was added. The pilot held a FAA class 3 medical certificate issued on July 22, 1999, with the limitation that the holder wear correcting lenses while exercising the privileges of the certificate. The pilot received a biennial flight review, as required by 14 CFR Part 61, on May 8, 2000. Logbook records show that at the time of the accident the pilot had accumulated 2,555 total flight hours and 127 flight hours on the Piper PA-46-350P. (See pilot logbook records.)

Aircraft Information

The airplane was a New Piper Aircraft, Inc., model PA-46-350P, serial number 46-36024, manufactured in 1996. At the time of the accident the airplane had accumulated 709 total flight hours. The airplane received an annual inspection on June 5, 2001, 14 flight hours before the accident. The airplane was equipped with a Textron Lycoming TIO-540-AF2A, 350 horsepower engine. The engine was overhauled by Textron Lycoming on January 4, 2000, 135 flight hours before the accident. (See aircraft logbook records.)

Meteorological Information

The Asheville Regional Airport, 1654, surface weather observation, was winds from 120 degrees at 6 knots, visibility 4 statute miles in haze, clouds overcast at 2,600 feet agl, temperature 73 degrees F., dew point temperature 63 degrees F., altimeter setting 30.07 inches Hg. The Asheville Regional Airport is located about 20 nautical miles south-southwest of the accident site, at an elevation of 2,165 feet msl.

A meteorological study was performed by an NTSB Meteorologist. The study showed the accident area was under the influence of a ridge of high pressure. Weather depiction charts prepared by the National Weather Service (NWS) depicted an area of marginal visual flight rules conditions in the area around Asheville, North Carolina. The NWS radar summary for 1715 showed no echoes were identified in the immediate vicinity of the accident site. Satellite imagery data showed that a stratiform band of clouds existed over the western North Carolina area, including the accident site. The line extended to the west of the accident site and to the east of Burnsville. The tops of the clouds were in the 7,000 feet agl range. The forecast for the accident area was for scattered to broken clouds at 5,000 feet msl, with tops to 12,000 feet msl, visibility 3 to 5 miles in haze. At the time of the accident Airmet Sierra update 4 was in effect for the accident area. The airmet called for mountain obscuration with mountains occasionally obscured in clouds, mist, and haze. The Asheville Regional Airport, Terminal Aerodrome Forecast called for temporary conditions of visibility 5 miles in haze, ceiling broken at 2,500 agl, at the time of the accident. (See NTSB Meteorology Factual Report.)

A witness stated that while passing on the Blue Ridge Parkway, adjacent to the crash site, during the morning on the day of the accident, and again between 1600 and 1630 on the day of the accident, he found that it was very foggy on the parkway and he had difficulty making out the yellow line on the road. The crash site is about 3/4 of a mile east of the Blue Ridge Parkway. (See witness statement.)

The FAA, Raleigh, North Carolina, Flight Service Station, performed a check of weather briefing records, and found no record that the pilot of N396PM had received a weather briefing from a FAA Flight Service Station. A friend of the pilot that was with him at Burnsville, North Carolina, stated she did not observe him obtain a weather briefing before going to Asheville to

pick up N396PM. (See FAA Inspector Statement and Witness Statement.)

Wreckage and Impact Information

Examination of the crash site showed the airplane initially impacted 75-foot-tall trees, while in a wings level attitude, while on a 170-degree heading. The initial impact point was located at about 4,800 feet msl on Bullhead Mountain, at position 35 degrees, 43 minutes, 27 seconds north and 82 degrees, 20 minutes, 40 seconds west. After initial impact, the airplane traveled through the trees for about 300 feet, which resulted in separation of the left wing, outboard right wing, and tail surfaces, prior to coming to rest. The main wreckage came to rest with the nose of the airplane on a northerly heading. All components of the airplane which are necessary for flight were located along the crash path.

Examination of the main wreckage showed that continuity of the flight control system was confirmed. All separation points in the flight control cables and flight control surfaces were consistent with overstress separation. All separation points of structural components was consistent with tree impact or ground impact damage. The landing gear and wing flaps were retracted at the time of impact. The throttle was found in the full forward position. The mixture control and propeller control were found about 25 percent aft of the full positions. The elevator and rudder trim systems were found in the neutral positions. The left side of the cockpit was opened by impact forces and the pilot was ejected from the airplane. The pilot's seat belt and shoulder harness were found unbuckled. The pilot's airspeed indicator needle was separated due to impact forces. A mark on the face of the indicator corresponded to 165 knots. The autopilot actuators were found disengaged. Examination of the warning annunciation panel showed no warning light bulb filaments were stretched. The transponder was found set to 0226, and in the on and altitude reporting position. Disassembly of the pilot's vacuum driven attitude indicator and electric driven turn and bank indicator showed no external damage to the gyro rotor housings and no rotation scarring on the gyro rotors.

Examination of the airframe fuel system showed the fuel selector was on the left fuel tank position. Uncontaminated fuel was found in the airframe fuel lines and no obstructions in the lines was found. The fuel strainer was free of debris and contamination. Each fuel tank was ruptured. Damage to foliage at the crash site due to fuel spillage was noted.

Examination of the engine showed that the propeller was still attached. The engine was rotated and continuity of the crankshaft, camshaft, valve train, and accessory drives was confirmed. Each cylinder, except the No. 2 cylinder produced compression. Removal and examination of the No. 2 cylinder showed no damage that would prevent operation of the cylinder. Leakage past the intake and exhaust valves due to dislodged carbon from impact forces was found. Each magneto fired at all post when rotated by hand. Each spark plug had deposits with the color consistent with normal engine operation. The engine-driven fuel pump, fuel control, manifold, and injectors were operated together and found to operate normally. Uncontaminated fuel was found in all engine fuel lines and components. No obstructions in the engine fuel system was noted. The engine-driven vacuum pumps were disassembled and showed no signs of precrash failure or malfunction. The propeller governor rotated and pumped oil when turned by hand. The left and right turbochargers had no damage. The turbochargers rotated freely and the waste gate was found in the open position.

Examination of the propeller showed that the propeller spinner had twisting damage opposite the direction of normal rotation and each blade had bending damage consistent with rotation

under power at the time of the accident. The blades were found in the low blade angle area. Disassembly of the propeller showed that each blade pitch change knob had separated from the blade due to overstress. No evidence of failure or malfunction of the propeller was noted.

Examination of the pilot's altimeter showed it had sustain impact damage and was reading 46,550 feet and was set to 30.15 inches Hg. Disassembly of the altimeter was conducted at an overhaul facility. The altimeter had internal damage due to impact forces and no evidence of failure or malfunction prior to the accident was found.

Examination of the copilot's altimeter showed it was reading 4,900 feet and set to 29.98 inches Hg. The altimeter was tested in a chamber and found to read 400 feet over the selected altitude, which was attributed to impact forces. Disassembly of the altimeter showed no evidence of failure or malfunction prior to the accident.

Medical and Pathological Information

Postmortem examination of the pilot was performed by Dr. Harold R. Gollberg, Buncombe County Medical Examiner, Winston-Salem, North Carolina. The cause of death was attributed to multiple blunt force injuries. No findings which could be considered causal to the accident were reported. Postmortem toxicology tests were performed on specimens obtained from the pilot by Office of the Chief Medical Examiner, Chapel Hill, North Carolina, and by Dennis V. Canfield, Ph.D., Manager, FAA Toxicology Laboratory, Oklahoma City, Oklahoma. The tests were negative for carbon monoxide, cyanide, ethanol, and drugs. (See Toxicology Reports.)

A friend of the pilot that traveled with him from Atlanta, Georgia, to Burnsville, North Carolina, on July 20, 2001, stated that the pilot was not in good spirits on July 20, 2001 and on the day of the accident. He was depressed about problems with his business and was preoccupied by the problems. When he went to Asheville to pick up N396PM, he left his brief case at the airport. (See Witness Statement)

Additional Information

The NTSB released the airplane wreckage on August 15, 2001, to John D. Marlowe, Claims Representative, Universal Loss Management, Inc, Concord, North Carolina. Components retained by NTSB for further examination were released to John D. Marlowe.

Pilot Information

Certificate:	Commercial	Age:	54, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/22/1999
Occupational Pilot:		Last Flight Review or Equivalent:	05/08/2000
Flight Time:	2555 hours (Total, all aircraft), 127 hours (Total, this make and model), 2383 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N396PM
Model/Series:	PA-46-350P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	46-36024
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	06/05/2001, Annual	Certified Max Gross Wt.:	4300 lbs
Time Since Last Inspection:	14 Hours	Engines:	1 Reciprocating
Airframe Total Time:	709 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	TIO-540-AE2A
Registered Owner:	Malibu, Inc.	Rated Power:	350 hp
Operator:	William C. Plate	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AVL, 2165 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	1654 EDT	Direction from Accident Site:	200°
Lowest Cloud Condition:		Visibility	4 Miles
Lowest Ceiling:	Overcast / 2600 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	23° C / 17° C
Precipitation and Obscuration:			
Departure Point:	Asheville, NC (AVL)	Type of Flight Plan Filed:	None
Destination:	Burnsville, NC (2NC0)	Type of Clearance:	None
Departure Time:	1656 EDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	35.724167, -82.344444

Administrative Information

Investigator In Charge (IIC):	Jeffrey L Kennedy	Report Date:	01/02/2002
Additional Participating Persons:	David Sexton; FAA FSDO; Charlotte, NC Robert P Martellotti; The New Piper Aircraft, Inc.; Vero Beach, FL Paul Lehman; The New Piper Aircraft, Inc.; Vero Beach, FL John Butler; Lycoming Engines; Williamsport, PA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).