



National Transportation Safety Board Aviation Accident Final Report

Location:	ELIZABETHTON, TN	Accident Number:	ATL94FA076
Date & Time:	04/07/1994, 0810 EDT	Registration:	N64LB
Aircraft:	PIPER PA-31-350	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

THE ATP AND HIS PASSENGER WERE EN ROUTE TO PICK UP A PATIENT FOR TRANSPORT TO A VA HOSPITAL. THE DESTINATION AIRPORT WAS UNCONTROLLED, AND VFR ONLY. THE PILOT CANCELLED WITH ATC AND REPORTED THE FIELD IN SIGHT. THE AIRPORT WAS REPORTING VFR CONDITIONS, BUT RISING, MOUNTAINOUS TERRAIN EXISTED TO THE NORTHEAST, AND LOCAL AUTHORITIES REPORTED THAT THE TOP THIRD OF THE MOUNTAIN WAS OBSCURED IN CLOUDS DURING THE MORNING OF THE ACCIDENT. AFTER CANCELLING IFR, NO SUBSEQUENT RADIO CALLS WERE RECEIVED FROM THE FLIGHT, AND THE FLIGHT DID NOT ARRIVE AT ITS DESTINATION. THE WRECKAGE WAS FOUND SEVERAL HOURS LATER NEAR THE CREST OF HOLSTON MOUNTAIN, 1/2 MILE EAST OF THE HOLSTON MTN VOR. AN EXAMINATION OF THE WRECKAGE INDICATED THE AIRCRAFT IMPACTED UPSLOPING, WOODED TERRAIN, WHILE AT A CLIMB ANGLE OF 8 DEGREES. DISINTEGRATION OF THE WRECKAGE WAS INDICATIVE OF A HIGH SPEED IMPACT. NO EVIDENCE OF MECHANICAL MALFUNCTION OR FAILURE WAS FOUND DURING THE EXAMINATION OF THE WRECKAGE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S ATTEMPTED VFR FLIGHT INTO IMC CONDITIONS, AND HIS FAILURE TO MAINTAIN A PROPER ALTITUDE OVER MOUNTAINOUS TERRAIN. FACTORS WERE THE CLOUDS AND OBSCURATION AT THE ACCIDENT SITE.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - OBSCURATION
 2. (F) WEATHER CONDITION - CLOUDS
 3. (C) VFR FLIGHT INTO IMC - ATTEMPTED - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CRUISE

Findings

4. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On April 7, 1994, at 0810 eastern daylight time, a Piper PA-31-350, N64LB, collided with mountainous terrain near Elizabethton, Tennessee. The aircraft was destroyed. The airline transport pilot and one passenger were fatally injured. The aircraft was operated under 14 CFR Part 91 by Augusta Aviation, Inc., of Augusta, Georgia. Instrument meteorological conditions existed at the time, and an instrument flight rules (IFR) flight plan was filed for the positioning flight to Elizabethton. The flight originated in Augusta at 0650.

According to the operator, the purpose of the flight was to pick up a patient at the Elizabethton Airport, so that he could be transported to a Veterans Administration hospital in Augusta for treatment. On the evening prior to the accident flight, a man, who identified himself as the pilot of N64LB, called the Macon Automated Flight Service Station (AFSS), and filed an IFR flight plan from Augusta to Elizabethton. He also obtained a weather briefing for the flight. At 0451, on the morning of the accident flight, he again phoned the Macon AFSS, and obtained an updated weather briefing for the flight to Elizabethton. The operator reported that the departure time of the accident flight was 0650.

At 0758, the pilot of N64LB made initial contact with Tri- City Approach. N64LB was told to expect a lower altitude in five miles, and to expect a visual approach to Elizabethton Airport. At 0806, N64LB was issued a descent to 5,400 feet, and was advised of cloud top and icing information. At 0807, the Elizabethton Airport was pointed out to N64LB as being at his ten to eleven o'clock position, for 3 miles. The pilot of N64LB then advised the controller that the Elizabethton Airport was in sight, and at 0807, he cancelled his IFR flight plan. No subsequent radio calls were received from N64LB, and no distress calls were reported by any other facility.

When the flight did not arrive, a search for the aircraft was initiated. The Atlanta Air Route Traffic Control Center (ARTCC) radar tracked N64LB until 0806:46, when the aircraft was descending through 7,300 feet msl. No recorded radar data was available for the final minutes of the flight. The wreckage was found about 200 feet below the crest of Holston Mountain, located about 5 miles northeast of the Elizabethton Airport. The elevation of the wreckage site was about 4,000 feet mean sea level. No eyewitnesses to the accident were found.

PERSONNEL INFORMATION

The pilot, Richard F. Niven, had been employed by Augusta Aviation as a pilot since September, 1990. According to the personal resume included in the pilot's personnel file, his other periods of employment, as a pilot, included first officer duties on the Boeing 727 (Eastern Air Lines), captain duties on the Embraer EMB-110 (Simmons Airlines), and captain duties on the DHC-6 and Cessna 402 (Capitol Airlines). He was also previously employed by Augusta Aviation during the time period of March, 1986 through October, 1988.

The pilot's personal logbook was not located following the accident. Flight time information was provided by Augusta Aviation. The Director of Operations for Augusta Aviation, J. Don Brown, was interviewed regarding the pilot's work record. He reported that Mr. Niven was a very conscientious pilot, and had flown with him on many occasions. Mr. Niven was always prepared to fly. He did not recall any occasions where Mr. Niven displayed any lapses in judgement, and characterized Mr. Niven as a highly competent pilot.

An examination of Mr. Niven's airman competency and proficiency check ride records indicate that eleven check rides were performed over a three and one half year period, while employed by Augusta Aviation. Five of these check rides were performed in the PA-31-350. All check rides were satisfactorily completed, and there were no unsatisfactory grades on any of the maneuvers on any check ride. Judgement was graded "satisfactory" on all eleven flights.

Additional information on the pilot is included in this report at the section titled "First Pilot Information", and in the attachments to this report.

The passenger, Mr. Jere Little, was an employee of Augusta Aviation. According to the company, Mr. Little was not employed as a pilot, and had no flight crew responsibilities. His purpose on the flight was to attend to the patient, who was to be boarded in Elizabethton.

AIRCRAFT INFORMATION

Information on the aircraft is included in this report at the section titled "Aircraft Information."

METEOROLOGICAL INFORMATION

Weather information for the Elizabethton Municipal Airport is included in this report at the section titled "Weather Information." The weather observation for 0820 reported a ceiling of 2,400 broken (above ground level, (agl)); the ceiling at 0800 was reported as 2,800 feet broken, with 2,200 scattered. The elevation of the Elizabethton Airport is 1,585 feet mean sea level (msl).

U.S. Forest Service personnel reported that on the morning of the accident, the top one-third of Holston Mountain was under dense cloud cover, and the trees and vegetation were covered with ice. The elevation of the accident site was about 4,000 feet msl.

Additional weather information is included as an attachment to this report.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located about 200 feet below the crest of Holston Mountain, about 1/2 mile east of the Holston Mountain VOR. The wreckage path was oriented in an uphill direction, on a magnetic heading of about 020 degrees. A swath was observed in the trees during the initial portion of the wreckage pattern; the inclination of the swath matched an 8 degree climb angle. The initial impact area consisted of numerous broken tree tops and several fallen trees. Several tree limbs exhibited smooth cuts on their surfaces. The trees had fallen in the direction of the wreckage path. The wreckage path measured approximately 220 feet in length, and 65 feet in width. The right engine, with its propeller assembly attached, was found about 220 feet uphill from the initial impact area.

The largest section of wreckage was the right wing and central fuselage, located about 175 feet from the initial impact area. The right engine was torn away from the firewall, and was located about 25 feet uphill from the right wing. The right wing section exhibited fire damage and sooting on all surfaces. The outer third of the right wing was bent aft, with leading edge-to-trailing edge crushing at the right, outboard fuel cell area, immediately outboard of the right tank fuel filler cap. The right fuel cells were ruptured and burned. Surface sooting propagation was vertical, relative to the position in which the wreckage was found. No aluminum spray or chordwise propagation of sooting was observed on the wing surface. The right aileron was in place, and bent upward. The right flap was in the retracted position. The right main landing

gear was retracted.

The left wing was found in two main sections, and both sections were located on the left side of the wreckage path (relative to the direction of the wreckage path). The inboard half of the wing was separated at the wing root, and exhibited aft direction crushing signatures. The wing structure, which surrounds the left fuel cells, was crushed and ripped open. The left fuel cells were ruptured; there was no residual fuel found in the cells. The left, main landing gear was in the retracted position. The left flap was in the retracted position. The left wing tip was severed chordwise at the mid-length point of the aileron. The outboard half of the aileron was still in place on the left wing tip. Other than light sooting, there was no fire damage to the left wing structure. The left engine was torn away from the firewall, and located directly adjacent to the right wing tip.

The empennage was located about 25 feet south of the main wreckage, inverted. All areas of the empennage main structure were burned and sooted. Several crushed pieces of empennage structure were located adjacent to the main empennage structure, and were not burned or sooted.

The right engine propeller assembly remained attached to the engine. The right engine and its accessories were not fire damaged. All three right engine propeller blades were twisted toward low pitch, exhibited chordwise scratching, "s" bending, and leading edge damage.

The left engine propeller assembly was located partially imbedded in the ground, about 100 feet south of the left engine. One propeller blade exhibited "s" bending and chordwise scratching. Another blade was bent aft, with chordwise scratching evident. A third blade was separated from the blade clamp; the blade was not located. The rear half of the clamp was fractured in an aft direction. There was tree bark and imbedded wood transfers on the hub surfaces. The fracture surface was crystalline and shiny in appearance. There were torsional twisting signatures on the propeller spinner surfaces.

Due to impact damage and general disintegration of the wreckage, flight control continuity could not be confirmed. All engine controls (throttle, mixture, and propeller) were found in the full forward positions. The fuel tank selector handles were set on the left and right inboard tanks; the cross feed handle was not selected. One engine tachometer was found loose in the wreckage path; its needle was frozen at the 2,300 rpm position. An airspeed indicator was also found loose in the wreckage, its needle was frozen at the 185 knot position.

MEDICAL AND PATHOLOGICAL INFORMATION

A post mortem examination of the pilot was performed by Dr. William F. McCormick, Director, Upper East Tennessee Forensic Center. A toxicological examination of the pilot was performed by the Toxicology Section of the Quillen College of Medicine, Johnson City, Tennessee. Tests for drugs and alcohol testing were negative except for positive caffeine in the bile screen.

ADDITIONAL INFORMATION

The aircraft wreckage was released to:

Glenn Galloway (Owner's Representative)
3399 Peachtree Road, NE Suite 1420

Associated Aviation Underwriters
Atlanta, Georgia 30326.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	34, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/09/1994
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	7800 hours (Total, all aircraft), 7800 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N64LB
Model/Series:	PA-31-350 PA-31-350	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	31-7852127
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	12/28/1993, Annual	Certified Max Gross Wt.:	7000 lbs
Time Since Last Inspection:	88 Hours	Engines:	2 Reciprocating
Airframe Total Time:	2910 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	TIO-540-J2BD
Registered Owner:	AUGUSTA AVIATION, INC.	Rated Power:	350 hp
Operator:	AUGUSTA AVIATION, INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	B5BA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	0A9, 1585 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	0800 EDT	Direction from Accident Site:	215°
Lowest Cloud Condition:	Scattered / 2200 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 2800 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	3°C / 0°C
Precipitation and Obscuration:			
Departure Point:	AUGUSTA, GA (DNL)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	None
Departure Time:	0650 EDT	Type of Airspace:	Class G

Airport Information

Airport:	ELIZABETHTON MUNICIPAL (0A9)	Runway Surface Type:	
Airport Elevation:	1585 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	Unknown
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	RALPH E HICKS,	Report Date:	12/07/1994
Additional Participating Persons:	ROBERT D HELMS; NASHVILLE, TN JAMES W MATHEWS; NASHVILLE, TN		
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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