National Transportation Safety Board
Aviation Accident Final Report

Location:	MOUNT IDA, AR	**Accident Number:**	DEN93FA053
Date & Time:	05/01/1993, 0637 CDT	**Registration:**	N530N
Aircraft:	BEECH 65-A90	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

APPROXIMATELY 7 MINUTES AFTER TAKEOFF, THE AIRPLANE COLLIDED WITH TERRAIN APRX 3 MILES FROM THE DEPARTURE AIRPORT. THE ACCIDENT SITE WAS 1,100 FT MSL; THE HIGHEST TERRAIN IN THE AREA IS 1,400 FT MSL. THE DEPARTURE AIRPORT ELEVATION IS 643 FT MSL. ACCORDING TO WITNESSES, THE AIRPLANE DISAPPEARED INTO CLOUDS AT APRX 200 FT FOLLOWING TAKEOFF, AND THAT THE HILLS TO THE SOUTHEAST WERE OBSCURED BY CLOUDS. THE PILOT HAD ABOUT 4 HOURS SLEEP THE NIGHT BEFORE THE ACCIDENT FLIGHT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO ESTABLISH AN ADEQUATE CLIMB RATE. FACTORS IN THE ACCIDENT WERE: PILOT FATIGUE FROM LACK OF SLEEP, AND THE WEATHER CONDITIONS.

Findings

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

Findings
1. (F) WEATHER CONDITION - LOW CEILING
2. (F) WEATHER CONDITION - FOG
3. (C) PROPER CLIMB RATE - NOT ATTAINED - PILOT IN COMMAND
4. (F) FATIGUE(LACK OF SLEEP) - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On May 1, 1993, at approximately 0637 central daylight time, a Beech 65-A90, N530N, collided with terrain three miles southeast of Mount Ida, Arkansas, Airport. The airline transport certificated pilot and passenger received fatal injuries and the aircraft was destroyed. Instrument meteorological conditions prevailed and an IFR flight plan was filed for this personal transportation flight to Huntington, Indiana, which departed Mount Ida approximately seven minutes prior to the accident.

In an interview with the operator, he stated that the flight was gratuitous and that no payment was to be made. Information provided by friends and family of the passenger indicated that this was a paid charter and that they had chartered aircraft from Arkansas Flight Management on at least one previous occasion.

Witnesses reported that the aircraft disappeared into the clouds, following takeoff, at approximately 200 feet above ground level and that the hills to the southeast were obscured by clouds. They estimated visibility to be 3/4 of a mile in fog.

According to attached air traffic control information, the aircraft made an initial call to Memphis Center following takeoff. This call was answered by the center but no response was received. A review of radar data revealed that the aircraft was not visible on Memphis Center radar. The accident site was approximately 1,100 feet above mean sea level (msl) and the highest terrain in the area was approximately 1,400 feet msl.

Wreckage of the aircraft was located by a Arkansas National Guard helicopter later in the day.

PERSONNEL INFORMATION

According to information provided by the aircraft owners and the operator, Mr. Theodore C. Smith, the pilot of the aircraft was employed by Arkansas Flight Management as a pilot. Other details concerning Mr. Smith's flight experience and qualifications can be found under PILOT INFORMATION in this document.

Available information indicates that the pilot arrived at his residence in Hot Springs, around midnight the night before the accident. Based on this investigator's drive from Hot Springs to Mount Ida, the driving time between to two points is approximately 45 minutes.

WRECKAGE AND IMPACT INFORMATION

Wreckage of the aircraft was strewn over an area approximately 150 wide and 750 feet long on a base heading of 280 degrees magnetic. Initial impact damage was observed in trees parallel to a ridge line approximately at 1,100 feet msl. The ridge line highest point is 1,400 feet msl. The first 100 feet of the wreckage scatter contained paint flakes, an aileron weight, deicer boot, propeller spinner, forward engine cowl door, and the right engine nose section. These items exhibited either no fire damage or minimal fire damage. The next 300 feet of the wreckage scatter sustained heavy fire damage and contained major aircraft components, as depicted in the attached wreckage diagram.

The last 350 feet of wreckage scatter started with heavy fire damage which decreased with distance and contained those portions of the aircraft shown in the attached wreckage diagram.

TESTS AND RESEARCH

Both wing position lights were recovered from the wreckage intact. These were sent to the National Transportation Safety Board Materials Laboratory for examination. The report of that examination is attached and provides information indicating both lights were powered at the time of the accident. Electrical diagrams indicate that these light are direct current and do not require inverter operation to function.

Both engines were examined at the facilities of Arkansas Airframe, Inc., in Clinton, Arkansas, on May 25, 1993. Participants in the examination represented the NTSB, FAA, Beech Aircraft, and Pratt & Whitney. Assistance was supplied by Arkansas Airframe. A report of the examination is attached and provides evidence that both engines were operating at the time of impact. This is based on rotational damage as detailed in the report. The report discusses a power turbine overspeed governor which exhibited an excessively worn drive shaft. Initial information on this component was supplied by a witness who observed this component being removed during routine maintenance.

The witness stated that the component was removed, visually examined and then reinstalled on the aircraft, with it known that the spline was worn at that time.

On December 10, 1992, the aircraft was at Combs Gates maintenance facility in Memphis, Tennessee, and the pilot, reportedly a Mr. John Watkins, requested that Combs Gates trouble shoot an electrical problem. The maintenance technicians found that one of the inverters was inoperative. The pilot elected not to have repairs made and departed. No record has been found to indicate that the subject inverter problem was dealt with prior to the accident flight. According to Beech Aircraft, either of the two inverters will supply power to the electrically powered flight instruments, and the minimum equipment list provides information that the aircraft may be flown with one inverter inoperative during day visual operations.

The propeller assemblies were examined at the facilities of Hartzell Propeller on August 12, 1993. Present during the examination were representatives from the NTSB, Beech Aircraft, and Hartzell Propeller. Assistance was provided by technicians from Hartzell. No indication of mechanical malfunction was discovered.

ADDITIONAL DATA/INFORMATION

The wreckage, except for the propeller assemblies, was released on May 5, 1993, to Mr. Michael J. Wilhelms, Commercial Aviation Insurance, 1212 Tara Lane, Saint Charles, Missouri. The propellers were released on October 4, 1993.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	**Age:**	43, 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:**	
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Helicopter	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	07/15/1992
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	3100 hours (Total, all aircraft), 650 hours (Total, this make and model), 2400 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N530N
Model/Series:	65-A90 65-A90	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	LJ141
Landing Gear Type:	Retractable - Tricycle	**Seats:**	10
Date/Type of Last Inspection:	01/18/1993, Annual	**Certified Max Gross Wt.:**	9650 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo Prop
Airframe Total Time:	8660 Hours	**Engine Manufacturer:**	P&W
ELT:	Installed, not activated	**Engine Model/Series:**	PT6A-20
Registered Owner:	C.C.T. & FLANCO LEASING, INC.	**Rated Power:**	550 hp
Operator:	ARKANSAS FLIGHT MANAGEMENT	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	, 0 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	0000	**Direction from Accident Site:**	0°
Lowest Cloud Condition:	Unknown / 200 ft agl	**Visibility**	0.75 Miles
Lowest Ceiling:	Overcast / 200 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:		**Type of Flight Plan Filed:**	IFR
Destination:	HUNTINGTON, IN (HHG)	**Type of Clearance:**	IFR
Departure Time:	0630 CDT	**Type of Airspace:**	Class G

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:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	NORMAN F WIEMEYER	**Report Date:**	05/04/1994
Additional Participating Persons:	WESLEY D CROOK; LITTLE ROCK, AR		
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.ntsb.gov/pubdms/.		