



National Transportation Safety Board Aviation Accident Final Report

Location:	WILLIAMSTOWN, MA	Accident Number:	NYC00FA006
Date & Time:	10/05/1999, 0545 EDT	Registration:	N208MS
Aircraft:	Raytheon Corporate Jets BE-200	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

The pre-takeoff instrument flight rules clearance for the flight called for the airplane to climb and maintain 5,000 feet, and to expect flight level 220, 10 minutes after departure. The clearance was read back correctly by a member of the flight crew. Shortly after takeoff, a member of the flight crew asked air traffic control for a higher altitude, and then stated 'uh, you want us at twenty two hundred.' The approach controller transmitted 'should be at five thousand;' however, there were no further transmissions from the airplane. The airplane wreckage was located at an elevation of about 2,300 feet, approximately 4.8 miles west of the departure airport. The airplane impacted wooded up-sloping terrain. Several broken trees were observed, which led to the beginning of the debris path. The trees were broken at about the same height. A weather observation taken at an airport about 12 miles north-northwest of the accident site, about the time of the accident included: few Clouds at 300 feet and a ceiling of 1,700 feet overcast.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's failure comply with an air traffic control clearance which resulted in a collision with terrain. A factor in this accident was clouds.

Findings

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

Findings

1. (F) WEATHER CONDITION - CLOUDS
2. (C) ATC CLEARANCE - NOT COMPLIED WITH - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On October 5, 1999, about 0545 Eastern Daylight Time, a Raytheon BE-200, N208MS, operated by Shoreline Aviation, Inc., was destroyed when it impacted terrain in Williamstown, Massachusetts. The certificated airline transport pilot, and the certificated commercial rated co-pilot were fatally injured. Instrument meteorological conditions prevailed and an instrument flight rules (IFR) flight plan had been filed for the flight that departed the Harriman-And-West Airport (AQW), North Adams, Massachusetts, about 0544. The positioning flight was destined for the Greenbrier Valley Airport, Lewisburg (LWB), West Virginia, and was conducted under 14 CFR Part 91.

According to the airplane operator, the flight crew was positioning the airplane to LWB, for a passenger flight to be conducted under 14 CFR Part 135, from LWB to the Hartford-Brainard Airport (HFD), Hartford, Connecticut, which was scheduled to depart at 0900. The flight crew drove from New Haven, Connecticut, to North Adams, the evening before the accident, and they arrived in the North Adams area, about 1915.

According to Federal Aviation Administration (FAA) communication transcripts, at 2208, on October 4, the pilot-in-command (PIC) contacted the Burlington Automated Flight Service Station (AFSS), to obtain a weather briefing for the accident flight, and for the return flight to HFD. In addition, he filed flight plans for both flights.

About 0520, on October 5, one of the pilots who identified himself as N208MS, contacted the Burlington AFSS, and requested an IFR clearance. Burlington AFSS, then contacted Albany Approach Control, and received the following clearance, which was relayed to N208MS:

"... atc clears november two zero eight mike sierra from the north adams airport to the lima whiskey bravo airport via as filed climb and maintain five thousand expect flight level two two zero one zero minutes after departure departure control frequency alban approach on one two five point zero..."

N208MS then transmitted:

"...atc clears ah king air two zero eight mike sierra as filed five thousand flight level two two zero in ten minutes..."

The airplane then departed runway 29 at AQW.

At 0544:08, N208MS made initial contact with Albany Approach Control, and at 0544:13, N208MS, stated "yeah we're off of North Adams." Albany Approach Control then relayed the current Albany Airport altimeter setting which was acknowledged by N208MS. At 0544:30, N208MS transmitted "...what's the chances of higher." At 0544:37, Albany Approach stated "as soon as I pick up your transponder I don't have anything on you yet." At 0544:45, N208MS transmitted, "uh, you want us at twenty two hundred." At 0544:50 Albany Approach stated "say again," which was followed by, "should be at five thousand" at 0544:55. There were no further transmissions from N208MS.

The accident occurred during the hours of dawn, and was located approximately 42 degrees, 41 minutes north latitude, and 73 degrees, 16 minutes west longitude.

PERSONNEL INFORMATION

The pilot-in-command and co-pilot were hired by Shoreline Aviation Inc., on April 28, and April 19, 1999, respectively.

The PIC held an airline transport pilot certificate with ratings for single and multi-engine land airplanes. Review of company records and the PIC's logbook revealed he had accumulated about 6,450 hours of total flight experience, of which about 1,865 hours were in multi-engine airplanes. Additionally, the PIC had logged about 200 hours of flight time under actual instrument meteorological conditions. The PIC began flying the accident airplane on May 1, 1999, and received a PIC check ride on July 7, 1999. He accumulated about 160 hours in N208MS, of which, about 40 hours were flown during the 30 days prior to the accident. The PIC's last flight and "duty day" before the accident was on September 25, 1999.

The PIC held an FAA first class medical certificate, which was issued on June 18, 1999.

The co-pilot's logbook was not recovered. He reported 1,530 hours of total flight experience on his last application for an FAA first class medical certificate, which was issued on September 15, 1999. According to company records, the co-pilot had accumulated about 150 hours of total flight experience during the 90 days prior to accident, of which, 30 hours were accumulated in the accident airplane. Fifteen hours were accumulated in N208MS during the 30 days prior to the accident. The co-pilot's last flight and duty day prior to the accident was on October 4, 1999.

According to the airplane operator, the PIC and co-pilot had flown together in N208MS, at least 6 times in the 30 days prior to the accident, and approximately 10 times overall.

AIRCRAFT INFORMATION

According to the airplane's maintenance records, the airplane was kept at AQW between September 23, 1999, and October 4, 1999, for maintenance which included a Phase I inspection, conducted in accordance with the Raytheon Aircraft Beech 200 Series Maintenance Manual. At the time of the inspection, the airplane's total airframe time was about 6,020 hours. The accident flight was the airplane's first after the inspection.

METEOROLOGICAL INFORMATION

A weather observation taken at an airport about 12 miles north-northwest of the accident site, at 0554, reported: wind calm; visibility 10 statute miles; few clouds at 300 feet; ceiling 1,700 feet overcast; temperature 43 degrees F; dewpoint 41 degrees F; altimeter 30.11.

WRECKAGE INFORMATION

The airplane wreckage was located at an elevation of about 2,300 feet, approximately 4.8 miles west of AQW, on Mount Berlin. The summit of Mount Berlin was about 2,800 feet. The airplane impacted wooded up-sloping terrain. The wreckage was scattered over a distance of about 350 feet on a magnetic bearing of approximately 280 degrees. Several broken trees were observed, which led to the beginning of the debris path. The trees were broken at about the same height.

All major portions of the airplane were accounted for at the accident site. The airplane's wings, fuselage, and tail section were fractured in several pieces, and scattered along the debris path. Additionally, several parts of the airplane were consumed by a post crash fire, and a strong odor of fuel was present at the accident site. Due to the post-impact condition of the wreckage, flight control continuity could not be verified.

Both engines were separated from their attach points, and both propellers were separated from their respective engines. Examination of both engines revealed rotational scoring present in the area of the power turbines, and there were no case penetrations. Both propellers were missing a blade which had separated at the hub. The remaining two blades from each propeller were twisted and contained "s" bending, accompanied with substantial leading and trailing edge damage.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were performed on both pilots, on October 7, 1999, by the North Berkshire County Medical Examiners Office, North Adams, Massachusetts.

The toxicological testing reports from the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma, was negative for drugs and alcohol for both pilots.

ADDITIONAL INFORMATION

Re-fueling

The airplane was re-fueled with 153 and 160 gallons of Jet-A fuel, on September 23, and 24, 1999, respectively.

Ground Proximity Warning System

At the time of the accident, there was no requirement for airplanes to be equipped with ground proximity warning systems (GPWS) during flights conducted under 14 CFR Part 91. Turbine powered airplanes being flown under 14 CFR Part 135, having a passenger seat configuration of 10 or more seats, excluding any pilot seat, were required to be equipped with an "approved" GPWS. The accident airplane was configured with seating for 8 passengers.

Review of the Federal Register revealed an FAA "Terrain Awareness and Warning System; Final Rule," which was scheduled to become effective of March 29, 2001. The Rule stated in part, "...No person may operate a turbine powered airplane configured with 6 to 9 passenger seats, excluding any pilot seat, after March 29, 2005, unless that airplane is equipped with an approved terrain awareness and warning system..." The Rule would apply to flights conducted under 14 CFR Part 91 and Part 135.

Wreckage Release

The airplane wreckage was released on October 6, 2000, to a representative of the owners insurance company.

Pilot Information

Certificate:	Airline Transport	Age:	35, 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:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	06/18/1999
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	6450 hours (Total, all aircraft), 160 hours (Total, this make and model), 6350 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Raytheon Corporate Jets	Registration:	N208MS
Model/Series:	BE-200 BE-200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	BB400
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	10/04/1999, Continuous Airworthiness	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	6020 Hours	Engine Manufacturer:	P&W Canada
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	PT6A-41
Registered Owner:	DURHAM AIRCRAFT SALES LLC	Rated Power:	850 hp
Operator:	SHORLINE AVIATION	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	DDH, 836 ft msl	Observation Time:	0554 EDT
Distance from Accident Site:	14 Nautical Miles	Direction from Accident Site:	340°
Lowest Cloud Condition:	Scattered / 300 ft agl	Temperature/Dew Point:	6° C / 5° C
Lowest Ceiling:	Overcast / 1700 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	NORTH ADAMS, MA (AQW)	Type of Flight Plan Filed:	IFR
Destination:	LEWISBURG, WV (LWB)	Type of Clearance:	IFR
Departure Time:	0544 EDT	Type of Airspace:	Class E

Airport Information

Airport:	HARRIMAN-AND-WEST (AQW)	Runway Surface Type:	
Airport Elevation:	654 ft	Runway Surface Condition:	
Runway Used:	29	IFR Approach:	
Runway Length/Width:	4300 ft / 100 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	LUKE SCHIADA	Adopted Date:	12/04/2000
Additional Participating Persons:	GORDON S SMITH; WINDSOR LOCKS, CT BRIAN D CASSIDY; WICHITA, KS THOMAS A BERTHE; S. BURLINGTON, VT RICHARD I BUNKER; BOSTON, MA		
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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