



National Transportation Safety Board Aviation Accident Final Report

Location:	Beaumont, TX	Accident Number:	FTW04FA054
Date & Time:	01/02/2004, 1815 CST	Registration:	N396HP
Aircraft:	Piper PA-32R-301	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

During a night instrument approach, the 13,350-hour flight instructor reported the runway in sight, and cancelled instrument flight rules clearance. Subsequently, the airplane struck a shielded static wire above high voltage transmission lines approximately 52-63 feet in height, before impacting terrain and coming to rest approximately 0.6 nautical miles north of the runway. Air Route Traffic Control had previously reported weather at another airport approximately 13 miles away to be 100 feet overcast with one mile visibility. No mechanical anomalies were noted with the airplane or engine during the course of the investigation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's failure to maintain clearance with a static line. Contributing factors were the low cloud ceiling weather conditions and night light conditions.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH

Findings

1. OBJECT - WIRE,STATIC
 2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND(CFI)
 3. (F) WEATHER CONDITION - LOW CEILING
 4. (F) LIGHT CONDITION - NIGHT
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On January 2, 2004, approximately 1815 central standard time, a Piper PA-32R-301, single-engine airplane, N396HP, was destroyed upon impact with terrain following an in-flight collision with power lines while landing at the Beaumont Municipal Airport (BMT), near Beaumont, Texas. The flight instructor (CFI) and private pilot receiving instruction were fatally injured. The airplane was registered to Anderson Air LLC., of Beaumont, Texas, and was operated by the pilot. Night instrument meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 instructional flight. The local flight originated from BMT, at 1630.

One of the owners of the aircraft reported that the pilot had recently hired the CFI to provide instruction and prepare him for an instrument exam. The accident flight was a familiarization flight and the first flight with the CFI and student together.

Review of the radio communications between the Beaumont Air Route Traffic Control Center (ARTCC) and the accident aircraft by the NTSB investigator-in-charge (IIC) revealed the CFI requested radar vectors for the Very High Frequency Omnidirection Range (VOR) / Distance Measuring Equipment (DME) Runway 13 instrument approach to BMT. ARTCC reported the sky condition at Southeast Texas Regional Airport (BPT), located approximately 13 miles southeast of BMT, to be 100 feet overcast with one-mile visibility. When the airplane was approximately four miles northwest of the runway, the pilot cancelled the IFR clearance and reported the airport in sight. There were no further communications transmitted or received from the accident airplane.

Several witnesses adjacent to accident site reported seeing a flash of light that "looked like lightning" followed by multiple explosions.

PERSONELL INFORMATION

The CFI held an airline transport pilot certificate with airplane single-engine land and multi-engine land ratings, a commercial pilot certificate with an airplane single-engine sea rating, and type ratings for the FA-C123, L-T33, and N-265 aircraft. The CFI also held a flight instructor certificate with an airplane single-engine land, airplane multi-engine land, and instrument airplane ratings. The CFI was issued a second class medical on November 5, 2003, with the limitation of "MUST WEAR CORRECTIVE LENSES." At the time of his last medical application, the instructor reported that he had accumulated a total of 13,350 hours of flight time. The instructor's logbook was not located during the investigation.

The pilot receiving instruction was issued a private pilot certificate with an airplane single-engine land rating on July 21, 2001, and was issued a third class medical certificate on March 12, 2003, with a limitation of "MUST WEAR CORRECTIVE LENSES." A review of the pilot's logbook revealed that he had accumulated a total of 150.2 hours of flight time, as recorded in the last entry in April of 2003.

AIRCRAFT INFORMATION

The 1996-model Piper PA-32R-301 Saratoga, serial number 3246030, was a low wing semi-

monocoque airplane, configured to carry six occupants. The airplane was powered by a direct drive, horizontally opposed, fuel injected Lycoming IO-540-K1G5 engine, rated at 260 horsepower, driving a three bladed constant speed Hartzell propeller.

Review of the aircraft maintenance logbooks revealed the airplane's most recent annual inspection was completed on July 16, 2003, with total airframe and engine time of 914.5 hours. No open maintenance discrepancies were noted.

According to the last entry in the airplane flight logbook on December 28, 2003, the airframe and engine time was 1,000.1 hours.

METEOROLOGICAL INFORMATION

At 1753, the automated surface observing station (ASOS) located at BPT reported the following conditions: winds from 180 degrees at 9 knots; visibility 1 statute mile with mist; sky condition overcast at 300 feet; temperature 66 degrees Fahrenheit; dew point 66 degree Fahrenheit; altimeter setting of 30.08 inches of mercury.

At 1805, BPT reported winds from 180 degrees at 8 knots; visibility 1 statute mile with mist; sky condition overcast at 100 feet; temperature 66 degrees Fahrenheit; dew point 66 degree Fahrenheit; altimeter setting of 30.08 inches of mercury.

At 1812, BPT reported winds from 180 degrees at 7 knots; visibility 0.5 statute mile with fog; sky condition overcast at 100 feet; temperature 66 degrees Fahrenheit; dew point 66 degree Fahrenheit; altimeter setting of 30.09 inches of mercury.

At 1853, BPT reported winds from 180 degrees at 6 knots; visibility 0.5 statute mile with fog; sky condition obscured; temperature 64 degrees Fahrenheit; dew point 64 degree Fahrenheit; altimeter setting of 30.08 inches of mercury.

AERODROME INFORMATION

The Beaumont Municipal Airport (BMT), near Beaumont, Texas, is an uncontrolled airport operating under class E classification airspace. The field elevation for BMT is 32 feet. Runway 13 is equipped with a pulsating/steady Visual Approach Slope Indicator (VASI) lighting system, located on the left side of runway, which is set for a 3.00-degree glide path to assist aircraft in attaining a descent profile. BMT is not equipped with weather reporting equipment.

The airport features a single concrete runway, 4,000 feet in length and 75 feet wide, oriented on a heading of 310 and 130 degrees respectively. The threshold for runway 13 is displaced 332 feet.

Runway 13 is equipped with a VOR/DME instrument approach. The full approach consists of a right hand procedure turn northeast of the airport prior to turning inbound to the airport on a course of 119 degrees. The straight-in landing minimums for a category A and B aircraft are: ceiling 540 feet; visibility 1 statute mile. The published missed approach procedure is: execute a climbing left turn to 2,300 feet via BPT VOR radial 316 to Kiell intersection.

No visual warnings such as wire balls or red lights were observed on or around the power lines located north of the airport.

WRECKAGE AND IMPACT INFORMATION

The main wreckage was located in a field approximately 0.6 nautical miles north of runway 13. The global positioning system (GPS) location was latitude 30 degrees 04.614' North, longitude 094 degrees 13.466' West, with field elevation of 28 feet msl. The airplane impacted a soft field on a heading of 130 degrees, and came to rest upright in a drainage ditch, approximately 15 feet deep, and 22 feet wide, on a heading of 276 degrees. The wreckage distribution path measured approximately 113 feet in length. A post impact fire consumed most of the airplane.

Examination of the accident site revealed the airplane struck a shielded static/neutral wire on top of high voltage power lines, approximately 52 to 63 feet in height. The pole structures were 375 feet apart. The line was located approximately 388 feet north of the main wreckage. A portion of the wire was found adjacent to the main wreckage.

The initial ground scar, approximately 113 feet from the main wreckage, contained multiple pieces of fractured fiberglass, nose gear doors, landing light, and plexi glass.

Examination of the airplane revealed the left wing and fuel tank were destroyed by fire. The aileron and flap were located within the main wreckage. The aileron control rod, control cable, and balance cable remained attached to the bellcrank. Control cable continuity was verified to the control wheel chain from the aileron bellcrank. The balance cable remained connected to the right wing. The left main landing gear was noted to be in the retracted position.

The right wing was also destroyed by fire. The aileron and flap were located within the main wreckage. The aileron control rod, control cable, and balance cable remained attached to the bellcrank. Control cable continuity was verified to the control wheel chain from the aileron bellcrank. The right main landing gear was noted in the extended position.

Components from the empennage were located within the main wreckage, and were destroyed by fire. Remains of the horizontal stabilator, rudder, and vertical stabilizer were identifiable. Both rudder control cables remained attached to the rudder bellcrank and were continuous to the rudder bar. Stabilator control cables were continuous from the stabilator control tube to the T- bar inside the cockpit area.

The fuselage and cabin area was destroyed by fire to the floor level. Seat frames were noted to be secure to the floor in their respective positions. Shoulder harness inertia reels parts were located within the wreckage; however, usage of the seatbelts and shoulder harnesses were undetermined.

The flap torque tube control was secure to the flap and tube arm. The arm position was found consistent with a flap setting of 10 degrees.

The engine remained attached to the remaining section of fuselage. All three propeller blades remained attached to propeller hub. The engine was recovered for further examination.

MEDICAL AND PATHOLOGICAL INFORMATION

The Jefferson County Morgue of Beaumont, Texas, performed an autopsy on the flight instructor, on January 3, 2004. Specimens for toxicological tests were taken from the pilot by the medical examiner.

The FAA's Civil Aeromedical Institute's (CAMI) Forensic and Accident Research Center examined the specimens taken by the medical examiner. The toxicological tests for the flight instructor were negative for carbon monoxide and alcohol. A level of 0.64 (ug/ml) of cyanide was detected in the blood. An unspecified amount of Atenolol was detected in the blood and

urine. A level of 0.047 (ug/ml) of Chlorpheniramine was detected in the blood and an unspecified amount was detected in the urine. A level of 0.464 (ug/ml, ug/g) of Nortriptyline was detected in the blood and an unspecified amount was detected in the urine.

According to an Federal Aviation Administration (FAA) Medical Examiner, the use of Chlorpheniramine and Nortriptyline are not recommended before flying. Use of Nortriptyline would have disqualified the CFI's medical certification if it had been reported. Review of past medical applications revealed the CFI failed to report the use of these medications to the FAA.

The Jefferson County Morgue of Beaumont, Texas, performed an autopsy on the pilot receiving instruction, on January 3, 2004. Specimens for toxicological tests were taken from the pilot by the medical examiner.

The FAA's Civil Aeromedical Institute's (CAMI) Forensic and Accident Research Center examined the specimens taken by the medical examiner. The toxicological tests for the pilot receiving instruction were negative for carbon monoxide, alcohol, and drugs.

TESTS AND RESEARCH

Examination of the engine and airframe were conducted on March 25, 2004, at the facilities of Air Salvage of Dallas, near Lancaster, Texas, under the supervision of the IIC.

Engine continuity was established throughout when manually rotated by hand using the propeller. "Thumb" compression was noted on all six cylinders. The top and bottom right side motor mounts were broken. The starter, alternator, and generator were destroyed by fire. The vacuum pump was disassembled, and all internal parts remained intact. No anomalies were noted. The oil suction screen was found to be free of debris. The oil dipstick and housing were destroyed by fire. The right magneto was destroyed by fire. The ignition harness was melted. The fuel flow divider was destroyed by fire. The engine driven fuel pump ejected fuel when operated manually by hand. The intake horn behind the fuel control unit was separated. The right oil cooler was destroyed by fire. The left oil cooler remained intact and secure. The #6 cylinder intake pushrod was bent. The #3 intake and exhaust pushrods were bent.

All three propeller blades remained secure to the propeller hub. One blade was missing a portion of the propeller tip. Chordwise scratching was observed on the outboard portion of the blade. The second blade was bent forward approximately 20 degrees. The third blade displayed slight "S" bending throughout its length, and the blade tip was partially melted. All three propeller blades displayed leading edge scoring and gouging.

Examination of the fuselage revealed the fuel selector valve was positioned on the left main fuel tank. The filter assembly and fuel bowl were found free of debris.

On May 5, 2004, the left magneto, (slick magneto, part number 6351, serial number 03091972), was examined at the facilities of Unison Industries, near Rockford, Illinois, under the supervision of an Federal Aviation Administration inspector. Visible charring and burn markings were present on the exterior of the magneto housing. Visual evidence of a "foreign material that pooled inside the magneto" was present.

During the initial test of the magneto, no spark was produced. Additional testing revealed the magneto coils were free of anomalies and operating properly; however, the contact point surfaces were insulated. The contact point surfaces were removed and examined. Visual inspection revealed the points were coated with the same contaminate found in the internal surfaces of the magneto housing. The contact points were subsequently cleaned and

reinstalled, and the magneto functioned normally when tested again. The source of the foreign contaminant was found to be consistent with fire suppression fluid used to extinguish the post impact fire.

ADDITONAL INFORMATION

The wreckage was released to the owner's representative on July 7, 2004.

Flight Instructor Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	74, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
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 2 Valid Medical--w/ waivers/lim.	Last Medical Exam:	11/05/2003
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	13350 hours (Total, all aircraft)		

Student Pilot Information

Certificate:	Private	Age:	50, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last Medical Exam:	03/12/2003
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	150 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Piper	Registration:	N396HP
Model/Series:	PA-32R-301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	3246030
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	07/16/2003, Annual	Certified Max Gross Wt.:	3615 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	914.3 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-K1G5
Registered Owner:	Anderson Air LLC	Rated Power:	260 hp
Operator:	Rodney Dean Anderson	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	BPT, 15 ft msl	Observation Time:	1812 CST
Distance from Accident Site:	13 Nautical Miles	Condition of Light:	Night
Direction from Accident Site:	120°	Conditions at Accident Site:	Instrument Conditions
Lowest Cloud Condition:	Thin Overcast / 100 ft agl	Temperature/Dew Point:	19° C / 19° C
Lowest Ceiling:	Overcast / 100 ft agl	Visibility	0.5 Miles
Wind Speed/Gusts, Direction:	7 knots, 180°	Visibility (RVR):	
Altimeter Setting:	30.08 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Beaumont, TX (BMT)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	1630 CST	Type of Airspace:	Class E

Airport Information

Airport:	Beaumont Municipal Airport (BMT)	Runway Surface Type:	Asphalt
Airport Elevation:	32 ft	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	VOR/DME
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	Straight-in

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:	On-Ground
Total Injuries:	2 Fatal		

Administrative Information

Investigator In Charge (IIC): Frank McGill **Adopted Date:** 09/29/2004

Additional Participating Persons: Lance S Little; FAA Flight Standards District Office; Houston, TX
John Butler; Lycoming Engines; Williams Port, PA
Michael McClure; The New Piper Aircraft, Inc.; Vero Beach, FL

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 pubinquiry@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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