Aviation Investigation Final Report

Location:	WARREN GROVE, New Jersey	**Accident Number:**	BFO94FA104
Date & Time:	June 17, 1994, 22:15 Local	**Registration:**	N62701
Aircraft:	PIPER PA-23-250	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE AIRPLANE DEPARTED THE AIRPORT AND WAS RECORDED ON RADAR FOR ABOUT NINE MINUTES. THE AIRPLANE THEN WENT INTO A RIGHT HAND TURN AND DESCENDED INTO THE TERRAIN. INSTRUMENT METEOROLOGICAL CONDITIONS PREVAILED. NO FLIGHT PLAN WAS FILED FOR THE CROSS COUNTRY FLIGHT. PRIOR TO DEPARTURE, THE PILOT RECEIVED NUMEROUS WEATHER BRIEFINGS FROM A FLIGHT SERVICE STATION. THE PILOT WAS TOLD '...VFR NOT RECOMMENDED.' POST ACCIDENT EXAMINATION OF THE AIRFRAME AND ENGINE REVEALED NO ANOMALIES. THE PASSENGER ABOARD THE AIRPLANE WAS THE OWNER AND HAD A PRIVATE PILOT CERTIFICATE. IT WAS REPORTED THAT THE OWNER WOULD USUALLY BE SEATED IN THE LEFT FRONT SEAT DURING FLIGHT. IT WAS NOT DETERMINED WHERE THE TWO PERSONS ON BOARD WERE SEATED AT THE TIME OF THE ACCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT DISREGARDED WEATHER EVALUATIONS, ATTEMPTED VFR FLIGHT INTO IMC AND FAILED TO MAINTAIN ALTITUDE AND CLEARANCE FROM THE TERRAIN.

Findings

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

Findings
1. (C) WEATHER EVALUATION - DISREGARDED - PILOT IN COMMAND
2. (C) VFR FLIGHT INTO IMC - ATTEMPTED - PILOT IN COMMAND
3. (C) ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
4. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On Friday, June 17, 1994, about 2215 eastern daylight time, a Piper PA-23-250, N62701, collided with terrain in Warren Grove, New Jersey. The pilot and pilot rated passenger were fatally injured. The airplane was destroyed. The cross country flight departed from Bader Field in Atlantic City, New Jersey, and was destined for the Essex County Airport in Caldwell, New Jersey. Instrument meteorological conditions prevailed and no flight plan was filed for the flight. The flight was conducted under 14 CFR Part 91.

National Track Analysis Program (NTAP) radar data were obtained from the Federal Aviation Administration's New York Air Route Traffic Control Center (ARTCC) for the date of June 17, 1994, around the time of the accident. A ground track plot of secondary and primary NTAP radar data that originated from Atlantic City Municipal-Bader Field Airport and ended at the crash site was extracted and assumed to be N62701. The first data point identified as N62701 was at 2204:11, and the airplane's altitude was 1,500 feet mean sea level. The last data point was recorded at 2213:11, and the airplane's altitude was not recorded.

Collectively, the NTAP data revealed N62701 departed Bader Field and progressed in a north-northwesterly direction at a ground speed of approximately 150 knots for about two minutes. The airplane then headed in a north-northeasterly direction for about six minutes. The last three radar returns showed the airplane in a right turn with a maximum turn diameter of 1.6 nautical miles. The airplane was recorded by radar for about a total of nine minutes.

A witness located in his home in Warren Grove stated he heard an airplane fly over from the northeast to the southwest around 2200. He stated several seconds after he heard the airplane, he "...heard an impact and called 911." The witness's wife stated that at the time of the accident it "...was extremely foggy out." She said there was no precipitation.

The accident occurred during the hours of darkness in Warren Grove at 39 degrees 44 minutes North latitude and 74 degrees 23 minutes West longitude.

PERSONNEL INFORMATION

The pilot held a commercial and flight instructor certificate with a single engine instrument airplane rating. She also held a commercial certificate with a airplane single engine and multiengine land instrument rating. According to Federal Aviation Administration records, she received her multiengine rating on January 2, 1993, and at that time reported a total time in multiengine airplanes of 180 hours and 30 hours in a multiengine airplane trainer device. She also reported at the time she received her multiengine rating that she had 5 total hours of

instrument night flight time.

The pilot-rated passenger was the owner of the airplane and held a private pilot certificate with a single engine land rating. He received his private pilot certificate on May 6, 1957. His log book indicated he had a total of 792 hours, of which 216 hours were at night, and 27 hours were dual instruction in the accident airplane. There was no instrument flight time or biennial flight review recorded in his log book.

AIRCRAFT INFORMATION

According to the airplane's log books, the airframe and engines received an annual inspection on May 15, 1994, at a tachometer time of 2,078 hours. The tachometer was destroyed during the accident.

The encoding altimeter was replaced on March 1, 1993. A review of the available airplane records indicated that the requirements of FAR 91.411 (altimeter system and static pressure system must be tested and inspected within the preceding 24 calendar months for instrument flight) had not been met.

METEOROLOGICAL INFORMATION

According to Millville, New Jersey, Federal Aviation Administration Automated Flight Service Station (FSS) records, a woman identifying herself as pilot of N62701 telephoned the FSS three times in the 24 hours preceding the accident. During each telephone call the pilot received a complete weather briefing.

The last telephone call to the FSS by the pilot was at 2104, about one hour prior to the accident. The pilot requested and received a complete weather briefing for the intended route of flight. Visual Flight Rules flight was not recommended. The following weather conditions were reported:

Atlantic City: -Prior to 2200 hours - skies 1,200 scattered-variable- broken, visibility 3 miles with fog.

-After 2200 hours - skies 1,200 overcast-variable-scattered, 3 to 6 miles visibility with fog, temperature 70 degrees F, dew point 67 degrees F. Marginal VFR.

Caldwell: -skies 20,000 scattered, 6 miles visibility with fog and haze.

North Jersey: -10,000 scattered, occasional 1,000 scattered, 3,500 broken, 3 miles visibility with fog.

During the last telephone call prior to the accident, the pilot reported that at Bader Field, the flight's point of departure, visibility was 1/4 of a mile.

At 2150, the Atlantic City Airport weather facility reported the weather as:

Indefinite sky obscured, 1/8 mile visibility with light drizzle,fog, and haze; winds were coming from a magnetic bearing of 180 at a velocity of 7 knots; temperature-68 degrees F; dew point 67 degrees F; altimeter setting of 30.11 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The accident site and wreckage were examined on June 18, 1994. The examination revealed the airplane came to rest in a swampy, heavily treed area. A swath was cut through trees in a westerly direction about 100 feet in length leading up to the main wreckage. The trees were cut on a 40 degree angle, with the right side of the swath lower than the left side.

The main structure of the airplane came to rest against trees. The wings were folded around the wreckage. The right wing engine was attached to the wing. The left wing engine was found a few feet from the wreckage. Both engine's propellers were twisted, bent and curled. The cabin area was destroyed. All structure of the airplane was accounted for at the accident site.

The attitude indicator was dismantled and the gyro casing was examined. Rotational score marks were noted on the internal side of the casing where the gyro spins.

Due to the inaccessibility of the wreckage at the accident site, the airplane was removed from the accident site and transported to a storage facility and re-examined. No airframe or engine anomalies were found.

MEDICAL AND PATHOLOGICAL INFORMATION

The autopsy was performed at the Kimball Medical Center located in Lakewood, New Jersey.

The toxicology was performed at the FAA Civil Aeromedical Institute located in Oklahoma City, Oklahoma, by Dr. Dennis V. Canfield, Ph.D. Dr. Canfield wrote, "No testing was performed due to a lack of suitable specimens."

ADDITIONAL INFORMATION

According to the pilot's mother, the pilot telephoned her earlier in the day (on the day of the accident) and told her that she had to cancel the flight the day before due to weather and thought that the flight might depart that evening.

Wreckage Release Information

The wreckage was released to Joe Shelby, AIG Aviation Incorporated of Edison, New Jersey,

on June 22, 1994.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	22,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	September 28, 1993
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	1100 hours (Total, all aircraft), 1000 hours (Pilot In Command, all aircraft), 96 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N62701
Model/Series:	PA-23-250 PA-23-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	27-7654157
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	May 15, 1994 Annual	**Certified Max Gross Wt.:**	5200 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	IO-540-C4B5
Registered Owner:	BARBOSA, FRANCISCO	**Rated Power:**	250 Horsepower
Operator:	BARBOSA, FRANCISCO	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	ACY ,9 ft msl	**Distance from Accident Site:**	25 Nautical Miles
Observation Time:	10:50 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Unknown	**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	20°C / 19°C
Precipitation and Obscuration:	N/A - None - Haze		
Departure Point:	ATLANTIC CITY (AIY)	**Type of Flight Plan Filed:**	None
Destination:	CALDWELL (CDW)	**Type of Clearance:**	None
Departure Time:	22:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Napolitan, Margaret
Additional Participating Persons:	JAMES SHEPPARD; PHILADELPHIA , PA
Original Publish Date:	April 5, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=8850