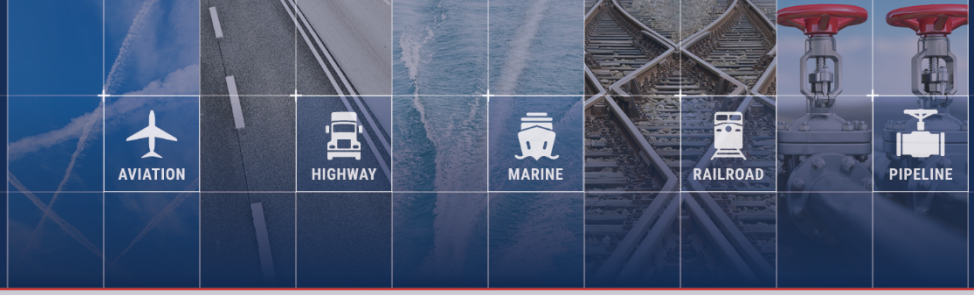

Aviation Investigation Final Report

Location:	LIMERICK, Pennsylvania	**Accident Number:**	NYC94FA065
Date & Time:	March 18, 1994, 11:26 Local	**Registration:**	N36444
Aircraft:	PIPER AEROSTAR 601P	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Executive/Corporate		

Analysis

AT 0815 EDT, N36444 LANDED WITH LIGHT SNOW FALLING & THE TEMPERATURE ABOVE FREEZING. SNOW CONTINUED FALLING & THE TEMPERATURE DROPPED BELOW FREEZING. AT ABOUT 1100, THE PILOT FILED AN IFR FLIGHT PLAN & HAD A LINEMAN BRUSH SNOW FROM THE WINGS. THE LINEMAN NOTED THAT PATCHES OF ICE REMAINED ON THE LEFT WING, BUT THE PILOT DECLINED TO DEICE THE PLANE. (AT AN AIRPORT 3 MILES AWAY, ANOTHER FLIGHT WAS DELAYED DUE TO ICE THAT HAD FORMED BELOW A SNOW COVER ON A PLANE THAT SAT OUTSIDE FROM 0945 TO 1100.) THE SURVIVING PASSENGER SAID THAT AFTER TAKEOFF, N36444 LOST LIFT & YAWED LEFT. IT APPEARED TO RECOVER, THEN VIBRATED, YAWED, BANKED LEFT, DESCENDED, & IMPACTED THE GROUND. AFTER THE ACCIDENT, THE ENGINES WERE TEST RUN WITH NO NOTABLE DEFICIENCIES. THERE WAS EVIDENCE THE PILOT WAS TAKING PRESCRIPTION MEDICATION. TESTS OF HIS BLOOD SHOWED 0.157 UG/ML OF DIAZEPAM & 0.134 UG/ML OF NORDIAZEPAM. TESTS OF HIS URINE SHOWED 0.152 UG/ML OF NORDIAZEPAM & 0.167 UG/ML OF OXAZEPAM. ON 3/2/90, THE PILOT HAD SURGERY FOR A TUMOR OF (OR NEAR) THE LEFT OPTIC NERVE. IN HIS LAST FAA MEDICAL APPLICATION, HE DENIED THAT HE HAD MEDICAL TREATMENT IN THE PREVIOUS 5 YEARS & DID NOT REPORT USE OF ANY MEDICATIONS. THE AVIATION MEDICAL EXAMINER HAD PRESCRIBED RESERPINE (FOR HYPERTENSION) & WAS AWARE OF THE SURGERY, BUT THIS WAS NOT REPORTED IN THE PILOT'S FAA MEDICAL RECORD.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO ENSURE THAT ICE WAS PROPERLY REMOVED FROM THE AIRPLANE BEFORE FLIGHT, POSSIBLY DUE TO IMPAIRMENT OF JUDGMENT CAUSED BY A

PRESCRIPTION DRUG (VALIUM) THAT WAS NOT APPROVED FOR USE WHILE FLYING. FACTORS RELATED TO THE ACCIDENT WERE: THE PILOT'S FAILURE TO PROPERLY REPORT HIS MEDICAL HISTORY ON HIS FAA MEDICAL APPLICATION, AND FAILURE OF THE DESIGNATED MEDICAL EXAMINER TO REPORT THE PILOT'S KNOWN MEDICAL HISTORY.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. WEATHER CONDITION - SNOW
2. WEATHER CONDITION - ICING CONDITIONS
3. (C) AIRFRAME - ICE
4. (C) ICE/FROST REMOVAL FROM AIRCRAFT - NOT PERFORMED - PILOT IN COMMAND
5. STALL/MUSH - UNCONTROLLED - PILOT IN COMMAND
6. (C) IMPAIRMENT(DRUGS) - PILOT IN COMMAND
7. (F) INFORMATION INSUFFICIENT - PILOT IN COMMAND
8. (F) INFORMATION INSUFFICIENT - DESIGNATED EXAMINER

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On March 18, 1994, about 1126 eastern standard time, an Aerostar 601P, N36444, owned by K&L Micro-Wave Electronics and piloted by Frederick G. Erb, was destroyed when it struck the ground during initial climb-out, about 1 mile from the Pottstown- Limerick Airport (PTW), Pottstown, Pennsylvania. The pilot and one passenger were fatally injured and a second passenger received serious injuries. An instrument flight plan had been filed for the flight operating under 14 CFR 91.

The airplane was based at the Salisbury (SBY) Airport, Salisbury, Maryland. The pilot and two passengers were employed by the same company and the flight originated that morning from SBY. The airplane arrived at PTW about 0815. Upon arrival at PTW, the passengers confirmed the expected departure time from PTW was 1100, and then departed by ground vehicle for their scheduled business meeting. According to personnel at the airport, the pilot met with local friends at the airport.

At 1040, Mr. Erb telephoned the Salisbury Flight Service Station (FSS). He requested an abbreviated briefing for an instrument flight from PTW to the South Jersey Regional Airport (7MY), Mount Holly, New Jersey. Mr. Erb was given the weather requested, which included an AIRMET for icing. He did not file a flight plan at that time.

The passengers arrived back at PTW at 1055. The pilot advised the passengers that due to weather, it would be "safer" to fly back to SBY and not make the planned stop at 7MY. The passengers agreed that the stop at 7MY was not essential.

At 1100, Mr. Erb called the Salisbury FSS. He stated that the weather was worse than he expected and filed an instrument flight plan from PTW to SBY, with a proposed off time of 1100.

After filing the flight plan, the pilot escorted the passengers to the airplane. When the passengers and cargo were secured in the airplane, the pilot returned to the hanger where he returned with a line service person (lineman) and a broom.

According to the lineman, the pilot entered the hanger and asked him to clean snow off of the wings of the airplane. The pilot and lineman returned to the airplane where the pilot observed the lineman remove some of the snow with a broom and then told the lineman, "I'll get in and get setup till you finish."

In a telephone interview on March 19, 1994, the lineman stated that he had swept the right

wing and nacelle clean of snow without a problem. He then swept the left nacelle clean, but the left wing had little patches of ice on it. He pointed at it to the pilot who was at the controls. He offered to pull the aircraft into the hanger, but the pilot stated no, it was "OK."

In his written statement submitted on March 31, 1994, the lineman stated:

"...I finished up [brushing the snow] and he looked out. I pointed to the wing, he shook his head, I stepped back and he started the engines...I observed a little flaky ice on [the] right wing, [the] left wing was clear. He did not ask me to clean anything else. I observed him working the controls systems and [they] seemed to work OK...I just glanced up when he took off and saw his nose gear lift off (2000 - 2500 feet)...Saw him at end of runway very low, then he disappeared into the snow."

The surviving passenger stated that he had flown in this airplane on several occasions. In his written statement he stated:

"...The man with the broom began to remove the snow off the wings. The amount of snow was about 1/4 to 1/2 inch. I did not see any ice nor did I pay attention to how much snow remained ...The time from when the snow had been removed, taxing to the runway, and clearance for takeoff was approximately 5 to 10 minutes...the takeoff was normal...Shortly after takeoff we lost the lift in the plane, and twisted very slightly to the left, maybe 5 to 10 degrees...I don't think we lost any altitude, but just stopped gaining altitude. Fred did some adjustments...we started to ascend again after a few seconds...Once Fred regained lift, roughly 30 seconds later, the plane did the same thing as before but more drastic. What I mean...is...the plane began losing altitude and twisted to the left more. The twist was 45 degrees or more this time with an abnormal vibration...I saw power lines through the front windows...I saw ...a field below us and the plane falling while it twisted. I can't say if we were turning hard to make the field or just twisting..."

A witness driving by on a highway, 1/4 mile from the departure end of the runway, observed the airplane fly overhead. He stated:

"...I would say the plane was roughly around 100 feet, heading down, banking towards its left (about 20 to 30 degrees roughly banking). Noticed no landing gear...Engine noise was extremely loud...Losing altitude fast. Weather condition was rain and snow mixed, icy patches forming on road.

In the police report, a witness on the ground at the accident site stated:

"He saw the plane over the trees. It was very low. [He] didn't hear anything out of the ordinary. Next, he saw the plane drop (as if pushed downward). Then, the left wing tilted downward. 'He hit and skidded (to point of rest)'."

The accident occurred during the hours of daylight at approximately 40 degrees, 14 minutes

north latitude, and 75 degrees, 20 minutes west longitude.

PERSONNEL INFORMATION

The pilot, Mr. Frederick G. Erb, held an Airline Transport Pilot Certificate with ratings for airplane multiengine land, a Commercial Pilot Certificate for airplane single engine land and glider, and a Flight Instructor Certificate with ratings for airplane single and multiengine land, and instrument airplane.

His most recent Federal Aviation Administration (FAA) First Class Medical Certificate was issue on November 15, 1993.

Mr. Erb's total flight time was estimated to be 19,950 hours. He had logged about 7,500 hours in Aerostars.

METEOROLOGICAL INFORMATION

The following weather reports and forecasts were available to the pilot of N36444, by the SBY FSS at the 1040 briefing:

Philadelphia (PHL), 15 miles west of 7MY - Record Special 0951 EDT, Ceiling measured 1,700 broken, 3,500 overcast, visibility 2 1/2 miles, light snow, temperature 35 degrees fahrenheit (F), and winds from 270 degrees at 6 knots.

PHL Forecast: Until 1300 EDT, 4,000 overcast, visibility 3 miles, light snow, occasionally 1,500 overcast, visibility 1 1/2 miles, light snow and fog. After 1300 until 1500 EDT, 2,500 overcast, 3 miles, light snow, occasionally 1,000 overcast, 1 mile visibility, light rain, light snow and fog, with a chance of 300 sky obscured, 1/2 mile visibility and snow.

North Philadelphia (PNE), 11 miles north west of 7MY - Record 0950 EDT, Ceiling estimated 12,000 overcast, visibility 12 miles, temperature 34 degrees F, and winds from 210 degrees at 5 knots.

PNE Forecast: From 1100 until 1300 EDT, 4,000 overcast, occasionally 2,500 overcast, visibility 3 miles, light snow. After 1300 until 1500 EDT, 2,500 overcast, 3 miles, light snow, occasionally 1,000 overcast, 1 mile visibility, light rain, light snow and fog, with a chance of 300 sky obscured, 1/2 mile visibility and snow.

Salisbury (SBY), Record 0948 EDT, Ceiling estimated 7,000 overcast, visibility 10 miles, temperature 37 degrees F, and winds from 160 degrees at 10 knots.

SBY Forecast: Until 1300 EDT, 25,000 thin broken. After 1300 until 1500 EDT, 3,500 scattered, 7,000 overcast, with winds from 220 degrees at 12 knots, gusting to 22 knots, occasionally 3,500 overcast, 3 miles visibility, light rain and fog.

The following weather reports were for the indicated periods near the time of the accident:

Navy Willow Grove (NXX): 1200 EDT, indefinite ceiling 500 obscured, 1/2 mile visibility, light snow and fog, temperature 31 degrees F, winds from 190 degrees at 5 knots.

Reading Regional (RDG): 1145 EDT, partial obscuration measured 1,200 overcast, 1 1/2 miles visibility, light snow and fog, temperature 31 degrees F, winds from 160 degrees at 6 knots.

WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was examined at the accident site on March 19, 1994. From the time of the accident, to the time of examination, about 4 inches of snow had fallen on the wreckage. The examination revealed that all major components of the airplane were accounted for at the scene.

The airplane came to rest upright at the edge of an open field, adjacent to a paved road, and about 60 feet from high tension power lines. Two 769 foot cooling towers, for the Limerick Nuclear Power Plant, were visible approximately 2,100 feet west of the wreckage site. The airplane came to rest on a magnetic bearing of 350 degrees.

The initial ground scars start approximately 105 feet from the wreckage, and were on a general magnetic bearing of 140 degrees. The ground scar contained pools of blue tinted liquid with the odor of fuel. Numerous pieces of sheet metal and lens glass, identified as belonging to the left wing, were found in the ground scar. The top section of the left engine cowling was also in the vicinity of the ground scar, about 30 feet from the wreckage.

The main fuselage was intact. The upper left area of the nose section was mud covered. The sheet metal and structural components were torn and compress inward and aft. Mud was imbedded in the torn sheet metal. The underside of the nose section and the remaining fuselage showed minimal damage. The landing gear was retracted. The flaps were at a 20 degree down setting.

The left wing was bent up and rearward outboard of the left engine. Sheet metal of the left wing section was ripped and bent backward from the wings leading edge. Mud was found imbedded throughout the left wing section.

The left engine was attached and twisted on the left wing. The engine was pointing downward about 60 degrees, with the top of the engine facing aft. Mud was observed imbedded in the forward and top sections of the engine.

The right wing remained attached to the fuselage. The sheet metal of the right wing was wrinkled and buckled along the upper and lower surface. The leading edge of the right wing

remained intact.

The right engine was attached to the right wing. Both upper and lower engine cowling were in place and undamaged.

Both the left and right engines were removed for further testing. Fuel was observed in both the left and right fuel lines when they were detached from their respective engines.

Fuel was drained from the left, right, and center fuel sumps of the main fuselage. When tested with water finding paste the fuel was found absent of water.

The propeller blades of both engines displayed chord wise twisting and chord wise scratches.

Control continuity was established through the toque tubes from the elevator and rudder to the center of the fuselage. The torque tubes were compressed and separated in the lower fuselage.

Control continuity could not be confirmed to the ailerons due to compression of the wings and fuselage onto the torque tubes.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on Mr. Frederick Erb, on March 19, 1994, by Dr. Ian C. Hood, for the Montgomery County Coroner's Office, Norristown, Pennsylvania. The results indicated that Mr. Erb died of, "multiple injuries".

The toxicological testing report from the FAA Civil Aeromedical Institute (CAMI), Oklahoma City, Oklahoma, revealed negative for carbon monoxide, cyanide and ethanol for Mr. Erb. A positive result was confirmed for 0.157 (ug/ml, ug/g) of diazepam detected in the blood.

According to Dr. Charles DeJohn, of CAMI:

"...The blood level reported for diazepam was 0.157 ug/ml. This is within the therapeutic range for the drug...Diazepam, commonly marketed as Valium, belongs to a group of drugs known as benzodiazepines, which are classified as hypnotics and sedatives.

All drugs belonging to this group affect motor and mental performance. Unlike barbiturates, metabolic conversion of benzodiazepines yields derivatives which have similar pharmacological activities and potencies to those of the parent compounds. The three metabolites of diazepam are nordiazepam, temazepam, and oxazepam...The most frequent side effect of benzodiazepines is drowsiness, which in some cases may be associated with ataxia (muscular incoordination), and confusion. In addition, parenteral (oral) administration of benzodoazepines may cause amnesia. In drug study volunteers given parenteral diazepam,

performance on various tests of psychomotor functioning has shown significant degrees of impairment. These effects may occur at doses which are below the usual therapeutic range and the patient may not be aware of them."

TESTS AND RESEARCH

ENGINES

The engines were removed from the wreckage and shipped to the Textron-Lycoming Plant, Williamsport, Pennsylvania. On April 19, 1994, the left engine was uncrated in the presences of the NTSB. All components of the turbo-charger system were removed. The upper spark plug from each cylinder was removed and the engine was rotated by hand to check compression and valve train continuity. The damaged spark plug wiring harness was replaced, but the magnetos were not disturbed. The number two intake pipe was replaced. All other components remained as found. The engine was mounted on a test stand. The engine was started and run for over 15 minutes. Less than a 100 RPM drop was observed during a left and right high magneto check. No abnormalities were detected during the engine run.

The right engine was uncrated on April 20, 1994, in the presences of the NTSB. All components of the turbo-charger system were removed. The upper spark plug from each cylinder was removed and the engine was rotated by hand to check compression and valve train continuity. No components of the right engine were replaced. The engine was mounted on a test stand. The engine was started and run for over 15 minutes. Less than a 100 RPM drop was observed during a left and right high magneto check. No abnormalities were detected during the engine run.

PROPELLER GOVERNORS

The propeller governors were removed from the left and right engines and shipped to Hartzell Propeller Inc., Piqua, Ohio. The governors were unpacked and tested on June 15, 1994, in the presences of Mr. Ronald Fosnut of the FAA MIDO, Vandalia, Ohio.

The results of the testing revealed that both governors operated satisfactorily and within specifications.

ADDITIONAL INFORMATION

Weather and Icing

Airplane icing was reported on the ground by another pilot at Pottstown Municipal Airport (N47), located about 3 miles from PTW. The pilot reported that he took his twin-engine airplane from the hanger to the ramp about 0945, March 18, 1994. At 1015, the pilot went out and checked on the condition of the airplane because it had started snowing when they pulled the airplane out at 0945.

According to the pilot's statement:

"...the temperature was above 32 degrees F. at this time and all the precipitation on the wing was water and I thought there would be no problem taking off...At about 1100...we loaded it up. It was still snowing pretty hard at the time, so I was going to brush all the snow off the aircraft before I tookoff. However, the water under the snow had turned to ice...so I could not get all the snow off because it had adhered to the ice on top of the wings. Also the ice would not come off the wings and was quite thick and irregular in shape (maybe 1/8 inch thick). The aircraft had to be put into our hangar to get the ice and snow off...we delayed our flight about 2 1/2 hours..."

According to the Textbook, Aerodynamics for Naval Aviators:

"...If a heavy coat of hard frost exist on the wing upper surface, a typical reduction in CL max, would cause a 5 to 10 percent increase in the airplane stall speed. Because of this magnitude of effect, the effect of frost on takeoff performance may not be realized until too late...The increase in drag during takeoff roll due to frost or ice is not considerable and there will not be any significant effect on the initial acceleration during takeoff. Thus, the effect of frost or ice will be most apparent during the later portions of takeoff if the airplane is unable to become airborne or if insufficient margin above stall speed prevents successful initial climb. In no circumstances should a formation of ice or frost be allowed to remain on the airplane wing surfaces prior to takeoff..."

Federal Aviation Regulation (FAR) 91.527 states that no pilot may takeoff an airplane that has: "(2) Snow or ice adhering to the wings or stabilizing or control surfaces;"

Medical

The pilot's briefcase was examined at the accident scene and found to contain over the counter drugs of Afrin Nasal Spray, Robutusson D.M., Tylenol and Tums. It also contained three prescription drugs. One drug, Diazepam, was filled in February 1994, and listed the prescribing doctor as Donald Wood.

HCTZ/Reserpine, a diuretic used for high blood pressure, was filled in January 1994 with an original issue date of June 1993. Ery-Tab, an antibiotic, was issued in February 1994. Both the HCTZ/Reserpine and the Ery-Tab prescription bottles listed the prescribing doctor as N.M. Warner.

Reviewing Mr. Erb's FAA Medical Records revealed that he had certified for the previous 23 years that he had not had any eye trouble, high blood pressure or taken any medication. According to these FAA Medical Records, Dr. N.M. Warner was the Aviation Medical Examiner who personally reviewed the medical history and examined Mr. Erb for 20 flight physicals, between October 1979 and November 1993. No abnormalities or disqualifying defects were

noted during these physical. There also was no mention of medical treatment, drugs or operations.

At the request of the Investigator-In-Charge, Dr. Warner was asked to provide all documents pertaining to diagnosis, treatment or prescriptions for Mr. Erb, for the period from October 1979 through March 1994. In a letter submitted by Dr. Warner, he stated that during the January 1990, routine second class flight physical, he noted that Mr. Erb had blurred and decreased vision in the left eye. He stated that Mr. Erb was sent to John Hopkins Medical Center, where he was operated on for a tumor of the optic nerve. Further, he stated that during the November 1993 flight physical, Mr.Erb had a severe pulmonary infection with pneumonia in the right upper lobe. None of this information was noted on any of Mr. Erb's FAA Medical Records.

In a letter submitted by Dr. Charles A. DeJohn, of CAMI, he stated:

"...While horizontal stabilizer and/or elevator icing are involved in this accident, the ability of the pilot to effectively deal with the emergency situation he encountered certainly could have been adversely affected by the blood levels of diazepam and its active metabolites present at the time...The pilot's decision to fly after taking Valium, his apparent withholding of significant medical information from the FAA, and his decision to depart during known icing conditions, suggests a pattern of questionable pilot decision making skills..."

The Code of Federal Regulations 14 CFR 67 is the Medical Standards and Certification section of the regulations. Part 67.20 deals with applications, certificates, logbooks, reports, and records: Falsification, reproduction, or alteration. This section states, "...No person may make or cause to be made...Any fraudulent or intentionally false statement on any application for a medical certificate under this part...The commission by any person of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any airman...medical certificate or rating held by that person."

Part 67.15 states that to be eligible for a second-class medical certificate, and applicant must meet the requirements "...(4) No pathology of the eye."

Part 91.17 states, "...No person may act or attempt to act as a crewmember of a civil aircraft...While using any drug that affects the person's faculties in any way contrary to safety..."

The airplane wreckage was released, minus the engines and propeller governors on March 19, 1994, to Mr. Chuck Bowman, a representative of the owners insurance company. The engines were released to Mr. Bowman on June 21, 1994, and the governors were released on July 22, 1994.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	63,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**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 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	November 15, 1993
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	19950 hours (Total, all aircraft), 7500 hours (Total, this make and model), 19150 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N36444
Model/Series:	AEROSTAR 601P AEROSTAR 6	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	P08438163444
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	July 28, 1993 Annual	**Certified Max Gross Wt.:**	6000 lbs
Time Since Last Inspection:	257 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	4356 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed	**Engine Model/Series:**	IO-540-S1A5
Registered Owner:	K & L MICROWAVE INC.	**Rated Power:**	290 Horsepower
Operator:		**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:**	Day
Observation Facility, Elevation:	NXX ,362 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	11:00 Local	**Direction from Accident Site:**	105°
Lowest Cloud Condition:	Unknown	**Visibility**	0.5 miles
Lowest Ceiling:	500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	-1°C / -2°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	POTTSTOWN , PA (PTW)	**Type of Flight Plan Filed:**	IFR
Destination:	SALISBURY , MD (SBY)	**Type of Clearance:**	IFR
Departure Time:	11:20 Local	**Type of Airspace:**	Airport advisory area;Class G

Airport Information

Airport:	POTTSTOWN-LIMERICK PTW	**Runway Surface Type:**	Asphalt
Airport Elevation:	309 ft msl	**Runway Surface Condition:**	Snow
Runway Used:	28	**IFR Approach:**	
Runway Length/Width:	3371 ft / 75 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal, 1 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal, 1 Serious	**Latitude, Longitude:**	40.179527,-75.529228(est)

Administrative Information

Investigator In Charge (IIC):	Pearce, Robert
Additional Participating Persons:	MICHAEL S PLANTZ; ALLENTOWN , PA ROBERT H SHAPIRO; ALLENTOWN , PA DANIEL B FLETCHER; WILLIAMSPORT , PA
Original Publish Date:	August 1, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=38669