



Aviation Investigation Final Report

Location:	MINFORD, Ohio	Accident Number:	NYC94FA134
Date & Time:	July 24, 1994, 07:30 Local	Registration:	N33468
Aircraft:	PIPER PA-32-260	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	5 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT HAD FILED AN INSTRUMENT FLIGHT PLAN, BUT DID NOT CALL FOR HIS CLEARANCE PRIOR TO DEPARTURE. THE AIRPORT HAS NO REMOTE RECEIVERS OR FAA ATC FACILITIES. VISIBILITY WAS LESS THAN 1/4 MILE. WITNESSES HEARD THE AIRPLANE DEPART FROM RUNWAY 18, TURN RIGHT, AND THEN THERE WAS 'A BIG CRACKLING NOISE....' THEY AGREED THAT THE ENGINE WAS NOT MAKING ANY UNUSUAL SOUNDS. THE TERRAIN WEST OF THE AIRPORT RISES 300-400 FT WITHIN 1,500 FT OF THE RUNWAY CENTERLINE. THE PUBLISHED INSTRUMENT DEPARTURE PROCEDURE FOR RUNWAY 18 IS TO CLIMB ON A HEADING OF 170 DEG UNTIL REACHING 1,200 FT MSL, THEN TO PROCEED ON COURSE. THE PILOT HAD COMPLETED HIS INSTRUMENT TRAINING AT THE ACCIDENT AIRPORT, AND HAD RECENTLY COMPLETED A RECURRENT INSTRUMENT TRAINING PROGRAM. ACCORDING TO HIS FLIGHT INSTRUCTOR, THE PILOT WAS INSTRUMENT CURRENT AND FAMILIAR WITH THE DEPARTURE PROCEDURES FOR THE AIRPORT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO FOLLOW THE PUBLISHED INSTRUMENT DEPARTURE PROCEDURE. A FACTOR IN THE ACCIDENT WERE THE WEATHER CONDITIONS.

Findings

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

Findings

1. (F) WEATHER CONDITION - OBSCURATION
2. (F) WEATHER CONDITION - FOG
3. TERRAIN CONDITION - RISING
4. (C) IFR PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
5. OBJECT - TREE(S)

Factual Information

HISTORY OF FLIGHT

On July 26, 1994, at 0730 eastern daylight time, a Piper PA-32-260, N33468, collided with rising terrain after takeoff from the Greater Portsmouth Regional Airport, Minford, Ohio. Instrument meteorological conditions existed. The pilot had filed an instrument flight rules (IFR) flight plan; however, the flight plan was not activated. The pilot and four passengers were fatally injured. One passenger was seriously injured. The airplane was destroyed. There was a fire. The flight was operated under 14 CFR Part 91.

The occupants were going to Talladega, Alabama, to attend an auto race. The pilot had received a weather briefing the night prior to departure, and another one on the morning of departure. He then filed an instrument flight plan.

There were witnesses near the approach end of runway 18 who saw the airplane before it took off. According to the witnesses, a pre-takeoff engine runup was done. The visibility was about 200 to 400 feet. The pilot used the full length of the runway for takeoff, and after the airplane disappeared in the fog during the takeoff, they heard the airplane turn right. The witnesses agreed the engine sounded normal and there were no unusual sounds. One of the witnesses said he heard a two loud sounds about a second apart and then the engine noise stopped.

Two additional witness were on the back porch of their residence, 1/2 mile southwest of the departure end of runway 18. They reported the visibility was approximately 1/2 mile. They heard the airplane takeoff and make a right turn. One of the witnesses said there was, "a big crackling noise and the engine stopped." The other said he heard, "crash - crunch, and the engine stopped." Both witnesses agreed that the engine was operating normally, with no unusual sounds.

A passenger onboard the airplane, and seated in the rear of the airplane stated to the Ohio State Police:

We had just taken off from Minford Airport [Portsmouth]. It was foggy and I guess the plane was too low. We struck a tree and then a larger tree. I think the left side hit first. We then went straight down and I think it landed on it left side. The plane caught on fire as soon as it landed.

The accident occurred during the hours of daylight at location 38 degrees, 49 minutes North, 82 degrees, 52 minutes West.

PERSONNEL INFORMATION

The pilot-in-command was the holder of private pilot certificate with airplane single engine land and instrument airplane limitations. He held a third class FAA airman medical certificate issued on February 12, 1993. According to his last medical certificate application, he had a total time of 522 hours with 25 hours in the preceding 6 months. Based on his previous flying history, the pilot was estimated to have flown an additional 71 hours in the preceding 17 months for a total estimated time of 593 hours at the time of the accident. The pilot had received his instrument rating on August 9, 1992.

A pilot rated passenger occupied the right front seat.

AIRCRAFT INFORMATION

The airplane was a 1975 Piper PA-32-260. It had 6 seats and was powered by a Lycoming O-540-E4B5 engine which developed 260 horse power. The fuel system had a capacity of 84 gallons useable. The inboard main tanks hold 25 gallons each, and the outboard wing tanks hold 17 gallons each. The airplane was last serviced with 28.7 gallons of 100 LL aviation grade gasoline on July 19, 1994.

The airplane records were not recovered and were believed to be onboard the airplane at the time of the accident. The last annual was conducted on September 3, 1993, with an airframe time of 2671 hours. The actual airframe time and time since inspection are unknown.

Piper Aircraft Company supplied a copy of the delivery weight and balance papers for the airplane. A check of FAA records revealed no revised weight and balance for a later date.

A weight and balance summary was completed using the aircraft weight supplied by Piper and occupant weights supplied to the Ohio State Police by family members. The takeoff weight was estimated to be 3709 lbs. The actual takeoff gross weight was unknown due to lack of actual weights on the occupants. The maximum allowable takeoff gross weight for the airplane was 3400 lbs.

METEOROLOGICAL INFORMATION

Weather observations at the airport were taken by an Automated Weather Observation Station (AWOS). The unit records ceiling below 12,000 feet Above Ground Level (AGL), visibility down to 1/4 mile, temperature, dewpoint, wind direction, wind velocity, and altimeter. The observations are recorded every 20 minutes. Following are the 0720 and 0740 observations.

0720 Sky obscured, ceiling 100 feet, visibility less than 1/4 mile, temperature 69 degrees F, dewpoint 61 degrees F, wind from 170 degrees, at 2 knots, altimeter 29.98 in/hg.

0740 Sky obscured, ceiling 100 feet, visibility less than 1/4 mile, temperature 69 degrees F, dewpoint 62 degrees F, wind from 180 degrees, at 3 knots, altimeter 29.98 in/hg.

People who were first to reach the accident site, 1 1/2 hours after the accident reported the hillside was foggy and the sun had not burned through the clouds.

AERODROME INFORMATION

The published instrument departure procedure for runway 18 is to climb on a heading of 170 degrees until reaching 1200 feet MSL, then proceeding on course. There are no remote antennas on the airport for communication with an ATC facility.

The terrain on the west side of the airport rises 300 to 400 feet within 1,500 feet of the runway centerline.

WRECKAGE AND IMPACT INFORMATION

The airplane was examined at the accident site on July 25, 1994. The debris path was spread along a distance of 385 feet, on a heading of 215 degrees magnetic. Trees in the area averaged 100 feet high. Small pieces of fiberglass were found at the base of the trees involved in the initial impact. Several large tree limbs, in excess of 6 inches in diameter were found on the ground, in the vicinity. A second major impact occurred 310 feet later and again several tree limbs with diameters in excess of 6 inches were found on the ground in the area. The angle between the broken tree limbs at the second impact site and the ground was 45 degrees.

All major components of the airplane were accounted for at the scene. The passenger cabin had burned. The fire extended forward to the rear of the engine and aft past the aft baggage compartment. Due to fire damage, no useful documentation was obtained from the cockpit.

The rudder and vertical stabilizer, and stabilator had received leading edge impact and heat damage, but were not burned. Flight control continuity for the rudder and stabilator was verified.

Both wings were separated from the main wreckage. The right wing was on top of the left wing. The trailing edge flap was separated from the left wing. On the right wing, the trailing edge flap was extended past full down. Aileron continuity was established on both wings. Both wings had leading edge impact and fire damage.

The accessory case on the rear of the engine was burned. The magnetos were burned off the accessory case. The aluminum surrounding the main sump screen was melted. The screen was present and free of debris. The carburetor was broken off the engine where it connects to the induction manifold. Examination of the carburetor found the linkages connected and operable. The float was melted from heat. The main jet was clear.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were conducted on the two pilots by Carl L. Parrott, M.D., Medical Examiner for Scioto County, Ohio, on July 25, 1994

Toxicological testing was conducted by the FAA Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma. The results were negative for drugs and alcohol on the pilot.

ADDITIONAL INFORMATION

There were no records available to show that the pilot had called to receive his IFR clearance prior to the departure. The initial fix on the pilot's IFR flight plan was the York VOR, which was located 13 miles from the departure end of runway 18, on a heading of 213 degrees magnetic.

According to the flight instructor who recommended the pilot for his instrument rating, the pilot had received his training at Portsmouth Regional Airport and was familiar with the procedures for instrument departures from the airport. In addition, he had recently completed a recurrent instrument training program which included 8 to 10 hours of flight instruction, including 6 instrument approaches.

The airplane wreckage was released to the co-owner on July 26, 1994.

Pilot Information

Certificate:	Private	Age:	58, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 12, 1993
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	593 hours (Total, all aircraft), 262 hours (Total, this make and model), 534 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N33468
Model/Series:	PA-32-260 PA-32-260	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32-7500023
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	September 3, 1993 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	O-540-E4B5
Registered Owner:	BERNARD P. ALLEN	Rated Power:	260 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:	PMH ,664 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	07:20 Local	Direction from Accident Site:	35°
Lowest Cloud Condition:	Unknown	Visibility	0.25 miles
Lowest Ceiling:	100 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	2 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	21°C / 16°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	(PMH)	Type of Flight Plan Filed:	IFR
Destination:	TALLADEGA (ASN)	Type of Clearance:	None
Departure Time:	07:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	GREATER PORTSMOUTH PMH	Runway Surface Type:	Asphalt
Airport Elevation:	664 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	4996 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	4 Fatal, 1 Serious	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 Fatal, 1 Serious	Latitude, Longitude:	38.880832,-82.829742(est)

Administrative Information

Investigator In Charge (IIC):	Hancock, Robert
Additional Participating Persons:	RICHARD HERMANN; CINCINNATI, OH GREG ERIKSON; WILLIAMSPORT, PA
Original Publish Date:	October 31, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=38681

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