Aviation Investigation Final Report

Location:	Fond du Lac, Wisconsin	**Accident Number:**	CHI03FA018
Date & Time:	November 4, 2002, 17:35 Local	**Registration:**	N6606P
Aircraft:	Piper PA-24	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane hit a 110 foot high power line 2.2 nautical miles south of the destination airport, and was destroyed by impact with the terrain and post-impact fire. Night visual meteorological conditions prevailed, and no flight plan was filed. A witness reported that he was about one mile south of the power lines, when he saw an airplane with it lights on flying from south to north at a very low altitude. He reported that the airplane's altitude would have been about 50 feet higher than the power lines. Inspection of the airplane revealed no pre-impact anomalies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot failed to maintain obstacle clearance from the power lines while on a night VFR approach. Factors to the accident included the dark night and the power lines.

Findings

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

Findings
1. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (C) LOW ALTITUDE FLIGHT/MANEUVER - PERFORMED - PILOT IN COMMAND
3. (F) LIGHT CONDITION - DARK NIGHT
4. (F) OBJECT - WIRE,STATIC

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

Findings
5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On November 4, 2002, at 1735 central standard time (cst), a Piper PA-24, N6606P, hit a power line and was destroyed by impact with the terrain and post-impact fire, 2.2 nautical miles south of the Fond du Lac County Airport (FLD), Fond du Lac, Wisconsin. The pilot and one passenger received fatal injuries. The 14 CFR Part 91 personal flight departed the Porter County Municipal Airport (VPZ), Valparaiso, Indiana, approximately 1720 eastern standard time (est), and was en route to FLD. Night visual meteorological conditions prevailed at the time of the accident. The flight was being flown under visual flight rules (VFR), and no flight plan was filed.

The pilot and passenger had departed FLD on October 31, 2002, for the Concord Regional Airport (JQF), Concord, North Carolina. They attended a NASCAR race near Raleigh-Durham, North Carolina. On November 4, 2002, the pilot contacted the Raleigh-Durham Automated Flight Service Station (AFSS) at 0611 est. He received a pilot weather briefing for a route of flight from JQF to FLD. The pilot did not file a flight plan.

The pilot departed JQF and flew VFR to VPZ. A fuel receipt indicated the pilot obtained 45.5 gallons of fuel at VPZ at 1712 est. The pilot departed VPZ and flew VFR to FLD. There was no record that the pilot contacted an approach control facility or FSS during the flight to FLD.

Radar data indicated that an airplane emitting a 1200 transponder code was traveling south to northwest on a direct heading to FLD between 1722-1734 cst. The radar data indicated the airplane was flying at 3,200 feet pressure altitude approximately 140-150 knots on a 342 degree magnetic heading. At 1729:55 cst, the airplane descended to 2,500 feet pressure altitude. The airplane continued flying on northwesterly heading that paralleled Wisconsin Highway 41, which travels through Fond du Lac, Wisconsin. At 1730:55 cst, the airplane was east of Lomira, Wisconsin, at an altitude of 2,500 feet pressure altitude and at 146 knots.

At 1732:35 cst, radar data indicated that the airplane started an approximately 500 foot per minute rate of descent. Between 1732:45 and 1737:05 cst, the airspeed slowed to about 113-130 knots. At 1734:26 cst, the airplane was about 1,500 feet pressure altitude, and approximately 96 knots on a heading of about 340 degrees.

The last radar indication was at 1734:56 cst. It indicated the airplane was about 1200 feet pressure altitude, or about 220 feet above ground level, at approximately 112 knots. The last radar indication was about 2.5 nautical miles south of the approach end of runway 36 at FLD.

A witness reported that he was in a truck located about one mile south of the wreckage site at

1735 cst, and he saw an airplane flying from south to north at a very low altitude. He reported that the altitude would have been about 50 feet above the power lines. He reported that he saw the airplane with its lights on, and he thought it was going to land in a cornfield.

A witness who lived near the wreckage site reported that around 1740 cst, he noticed the lights in his garage flicker two times, and then he heard a loud bang. He saw a fire in a neighbor's field. He proceeded to the field and observed an airplane burning. He reported that two power lines were still in contact with the airplane. He notified the county sheriff about the accident.

When the fire department first arrived at the scene, they were unable to use water to extinguish the fire due to the presence of the live power lines. The fire fighters attempted to suppress the fire by using dry chemicals and dirt. Once the power company cut the wires, the fire department was able to use water and foam to suppress the fire completely.

PERSONNEL INFORMATION

The pilot was a private pilot with single engine land and instrument ratings. He held a Third Class medical certificate. The pilot indicated that he had a total of 3,260 flight hours at the time of his last medical examination on January 16, 2001.

The pilot owned and operated the accident airplane, N6606P. There was no record of how many hours the pilot had flown the airplane.

AIRCRAFT INFORMATION

The airplane was a single engine Piper PA-24, serial number 241728. The airplane seated four and had a maximum gross weight of 2,550 pounds. The engine was a Lycoming 180 horsepower O-360-A1A engine. The last annual inspection was conducted on May 30, 2002. The airplane had a total time of 3,928 hours at the time of the annual inspection.

METEOROLOGICAL INFORMATION

At 1653, the surface weather observation at FLD was: wind 060 at 3 knots, sky clear, visibility 10 statute miles, temperature 3 degrees Celsius, dew point -3 degrees Celsius, altimeter 30.10 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The airplane hit the static wires at the top of the 110 foot high-voltage power lines that ran east and west at the south end of a plowed soybean field. The airplane impacted the terrain about 2.2 miles south of FLD at coordinates 43 degrees 44.085 minutes North latitude, and 088 degrees 29.178 minutes West longitude. The airplane came to rest about 330 feet north of the power lines on a magnetic heading of about 080 degrees. The wreckage path was on about a 360 degree magnetic heading. The first ground impact mark was about 300 feet from

the power lines, and was a "V" shaped ground scar that measured about 30 feet in length. The airplane skidded about 30 feet across the field before coming to rest.

Inspection of the airplane revealed that the cockpit, cabin, and in-board wing sections were consumed by fire. The aft fuselage, tail section, and outboard portions of both wings were not burned. The engine sustained fire damage at the accessory section.

Flight control continuity was established from the rudder bellcrank to the rudder pedals. Stabilator continuity was established from the stabilator bar to the control column. The aileron cables were intact from the bellcrank assemblies to the control column. The aileron balance cable was connected to both aileron bellcranks. The post-crash fire prevented any recording of the instruments or switch positions. The landing gear jackscrew indicated that the landing gear was down. The flap handle, and the position of the flaps on both wings indicated that the flaps were in the fully retracted position.

The engine was taken to Myers Aviation in Oshkosh, Wisconsin, for further inspection. The engine examination revealed the engine components mounted on the accessory section received fire damage. The internal components of both magnetos were melted from fire. The engine driven fuel pump was partially consumed by fire. A boroscope inspection of the cylinders revealed no anomalies. The spark plugs exhibited no anomalies. The crankshaft was rotated and continuity was confirmed to all accessory gears and all rocker arms. Thumb compression and suction were confirmed to all cylinders.

The propeller and spinner remained attached to the engine, but the propeller flange had three spokes broken and the flange was bent aft. One propeller blade exhibited light chordwise scratching on the cambered side of the blade, but no leading edge nicks or gouges. On the other propeller blade, the outboard 13 inches of the blade was bent back about 45 degrees. There was chordwise scratching on the outboard 14 inches of the cambered side of the blade. The outboard 2.5 inches of the bladetip exhibited gouging and grinding along the leading edge.

The front side of the nose wheel landing gear fork exhibited semi-circular gouge marks that were indicative of a wire strike. About a 10 foot section of power line wire was found embedded in the wreckage of the right wing.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot at the Fond du Lac County Medical Examiner's Office, Fond du Lac, Wisconsin.

Forensic Toxicology Fatal Accident Reports were prepared by the FAA Civil Aeromedical Institute. The report on the passenger was negative for all substances tested. The report on the pilot indicated the following results:

No carbon monoxide detected in the blood.

No cyanide detected in the blood.

No ethanol detected in the blood.

Ephedrine detected in the urine.

Pseudoephedrine detected in the urine.

Phenylpropanolamine detected in the urine.

Trimethoprim present in urine.

Trimethoprim detected in blood.

Ephedrine is a major component of the herbal supplement "Ma Huang" (also known as "ephedra"). Ma Huang is used as an "energy booster," stimulant, weight loss product, or decongestant in many nutritional supplements. Ephedrine is also sold as an asthma medication (trade name Primatene) available over the counter in tablet form

Pseudoephedrine is a decongestant often known by the trade name "Sudafed" and found in many multi-symptom over-the-counter preparations.

Phenylpropanolamine is a metabolite of ephedrine and pseudoephedrine.

Trimethoprim is an antibiotic usually given in combination with sulfamethoxazole in a combination frequently known by the trade name "Bactrim" and used for a wide variety of infections, including urinary tract infections, prostate infections, and sinus infections.

ADDITIONAL INFORMATION

Parties to the investigation included the Federal Aviation Administration, the New Piper Aircraft Company, and Textron-Lycoming.

Pilot Information

Certificate:	Private	**Age:**	64,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	January 16, 2001
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3260 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N6606P
Model/Series:	PA-24	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	241728
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	May 30, 2002 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	3928 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-360-A1A
Registered Owner:	Air Flite	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	FLD,808 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	60°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.1 inches Hg	**Temperature/Dew Point:**	3°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	VALPARAISO, IN (VPZ)	**Type of Flight Plan Filed:**	None
Destination:	Fond du Lac , WI (FLD)	**Type of Clearance:**	None
Departure Time:	17:20 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Fond Du Lac County Airport FLD	**Runway Surface Type:**	
Airport Elevation:	808 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	On-ground
Total Injuries:	2 Fatal	**Latitude, Longitude:**	43.770282,-88.439155(est)

Administrative Information

Investigator In Charge (IIC):	Silliman, James
Additional Participating Persons:	Don Pflieger; FAA-Milwaukee FSDO; Milwaukee, WI Greg Erikson; Lycoming; Wayne, IL George Hollingsworth; The New Piper Aircraft Company; Reston, VA
Original Publish Date:	March 30, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=56019