# National Transportation Safety Board
# Aviation Accident Final Report

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| **Location:** | Westphalia, MO | **Accident Number:** | CHI02FA284 |
| **Date & Time:** | 09/14/2002, 1555 CDT | **Registration:** | N451ES |
| **Aircraft:** | Pilatus PC-12/45 | **Aircraft Damage:** | Destroyed |
| **Defining Event:** | | **Injuries:** | 2 Fatal |
| **Flight Conducted Under:** | Part 91: General Aviation - Business | | |

## Analysis

The turbo-prop airplane departed controlled flight after initiating an ATC directed turn during cruise climb. The airplane subsequently entered a rapidly descending spiral turn, impacting the terrain and exploding. A witness reported hearing an "unusually loud" engine sound prior to seeing the airplane in a nose-low descent. The witness stated the airplane was "heading straight down, and did between a quarter and half of turn, but was not spinning wildly." The witness reported the airplane disappeared behind a nearby ridgeline and was followed by a "loud sound, and an immediate large cloud of black smoke." Aircraft radar track data showed the airplane heading to the northeast, while climbing to a maximum altitude of 13,800 feet msl. The airplane then entered an increasingly tighter, right descending turn. The calculated descent rate was 7,000 feet/min. Instrument flight rules (IFR) conditions prevailed at altitude and marginal visual flight rules (MVFR) conditions prevailed at the accident site. The instrument-rated pilot received a weather briefing prior to departure. During the briefing the pilot was told of building thunderstorm activity near the departure airport and along the route of flight. The pilot told the briefer he was going to depart shortly to keep ahead of the approaching weather. A witness at the departure airport reported that the passenger was concerned about flying in "bad weather" and the pilot told the passenger that the weather was only going to get worse and that they "needed to go to get ahead of it." A two-dimensional reconstruction determined that all primary airframe structural components, flight control surfaces, powerplant components, and propeller blades were present. Flight control continuity could not be established due to the extensive damage to all components. Inspection of the recovered flight control components did not exhibit any evidence of pre-impact malfunction. The standby attitude indicator gyro and its case showed evidence of rotational damage, consistent with the gyro rotating at the time of impact. Both solid-state Attitude & Heading Reference System (AHRS) units were destroyed during the accident, and as a result no information was available.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's spatial disorientation while turning in a cruise climb in instrument meteorological conditions, which resulted in the pilot's loss of aircraft control, and his failure to recover from a resultant tight descending spiral.

## Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CLIMB - TO CRUISE

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND
3. (F) WEATHER CONDITION - CLOUDS
4. REMEDIAL ACTION - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
5. TERRAIN CONDITION - GROUND
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Occurrence #3: EXPLOSION
Phase of Operation: OTHER

## Factual Information

HISTORY OF FLIGHT

On September 14, 2002, at 1555 central daylight time (cdt), a Pilatus PC-12/45, N451ES, piloted by a commercial pilot, was destroyed after colliding with terrain near Westphalia, Missouri. The airplane departed controlled flight during a climbing turn while enroute to cruise altitude. Instrument flight rules (IFR) conditions prevailed at altitude and marginal visual flight rules (MVFR) conditions prevailed at the accident site. The business flight was operating under provisions of 14 CFR Part 91 while on an IFR flight plan. The pilot and his passenger were fatally injured. The flight departed Lee C. Fine Memorial Airport (AIZ), Lake Ozark, Missouri, at 1540 and was en route to South Bend Regional Airport (SBN), South Bend, Indiana.

An employee of a fixed base operator (FBO) at AIZ overheard a conversation between the pilot of N451ES and his passenger prior to their departure. The FBO employee reported that the passenger was concerned about flying in "bad weather" and the pilot replied that the weather was only going to get worse and that they "needed to go to get ahead of it." The FBO employee stated that the pilot did not purchase any fuel prior to departing. The FBO employee reported that she made a written notation that N451ES departed at 1540.

According to information provided by the Federal Aviation Administration (FAA) Kansas City Air Route Traffic Control Center (ARTCC), the pilot of N451ES established radio contact at 1545:20 (hhmm:ss) and reported climbing to 7,000 feet above mean sea level (msl). ARTCC instructed N451ES to continue the climb to flight level 230 (23,000 feet). At 1552:09, ARTCC instructed N451ES to turn 20-degrees right and N451ES acknowledged the vector at 1552:14. No additional communications were received from N451ES. At 1555:33, ARTCC informed N451ES that he was not receiving a transponder beacon return and instructed the pilot to reset the transponder code. Between 1555:49 and 1558:36, ARTCC attempted to reestablish radio contact with N451ES without success. A transcription of the voice communications between ARTCC and N451ES is included with the docket material associated with this factual report.

Aircraft radar track data for the period before and after the reported accident time was obtained from FAA Air Traffic Control (ATC). The obtained data indicated a single aircraft transmitting a discrete transponder beacon code (1135) had departed from AIZ approximately 1543. A plot of the radar track data showed the airplane heading towards the northeast, while climbing to a maximum altitude of 13,800 feet msl. At 1553:19, the airplane entered an increasingly tighter, right descending turn. The aircraft descended from 13,700 feet msl to 11,600 feet msl between 1553:47 and 1554:05. The calculated descent rate for this time period was 7,000 feet/min. The last discrete radar return was received at 1554:23. Plots of the radar track data, along with a copy of the source data, are included with the docket material associated with this factual report.

Two people on Willibrand Lake witnessed the accident. One witness reported hearing the airplane first, then seeing the top profile of the airplane with the nose pointed straight down. The witness stated that he thought the airplane's altitude was approximately 2,500 feet to 3,000 feet. The witness reported the airplane completed a 1/2-turn towards the left showing the right side of the airplane during the nose-down descent. The witness stated he heard the airplane's engine "screaming loud" as the airplane descended below a ridgeline, followed a few seconds later with the sound of an impact.

The other witness reported that an "unusually loud" sound initially drew her attention to the airplane. The witness stated the airplane was approximately 1/2 mile above the ground, about 1 to 1/2 miles from her position. The witness reported the airplane was in a nose-low descent with the top of the airplane visible. The witness stated the airplane was "heading straight down, and did between a quarter and half of a turn, but was not spinning wildly." The witness reported the airplane disappeared behind a nearby ridgeline and was followed by a "loud sound, and an immediate large cloud of black smoke."

Witness statements are included with the docket material associated with this factual report.

DAMAGE TO AIRCRAFT

The airplane was destroyed by impact forces and explosion/fire.

PERSONNEL INFORMATION

According to FAA records, the pilot held a commercial pilot certificate with airplane single-engine land, airplane multiengine land, and instrument airplane ratings. The pilot also held a certified flight instructor certificate with airplane single-engine, airplane multiengine, and instrument airplane ratings. FAA records show the pilot's last medical examination was completed on September 5, 2002, when he was issued a first-class medical certificate with no restrictions or limitations.

A FAA inspector reviewed the pilot's flight logbooks and total flight times were calculated as of the last logbook entry, dated September 9, 2002. The pilot had a total flight experience of 1,645.2 hours, of which 1,091.8 hours were in single-engine airplanes and 553.4 hours were in multiengine airplanes. The pilot had logged 206.5 hours in turboprop airplanes, of which 63.5 hours were in single-engine turboprop airplanes and 143.0 hours were in multiengine turboprop airplanes. The pilot had accumulated 109.3 hours in actual instrument conditions and 45.9 hours in simulated instrument conditions.

The logbooks showed the pilot had flown 702.3 hours during the past year, 136.8 hours during the prior 90 days and 39.4 hours during previous 30 days. The pilot's first flight in a Pilatus PC-12/45 was logged on August 3, 2002, and he had logged 58.0 hours in the PC-12/45 as of the last logbook entry.

On August 6, 2002, the pilot reported his flight times to the insurance company that provided coverage for the accident airplane. The pilot reported having 3,100 hours total flight experience, of which 2,800 hours were as pilot-in-command (PIC). He reported having 1,900 hours in single-engine airplanes and 1,200 hours in multiengine airplanes. He also reported having 600 hours in a turboprop airplanes and 100 hours in turbojet airplanes. He stated that he had accumulated 900 hours during the previous 12 months and 190 hours during the prior 90 days. The pilot reported his instrument experience included 250 hours in actual instrument conditions and 160 hours in simulated instrument conditions.

The pilot reported the following flight times to the FAA when applying for previous medical certificates (total flight hours : hours during prior six months):

September 05, 2002 (2,200 : 500)

July 13, 2001 ( 960 : 100)

July 24, 2000 ( 550 : 75)

April 09, 1998 ( 12 : 12)

The pilot obtained ground, simulator, and flight instruction from SimCom Training Centers, Orlando, Florida, between July 29, 2002, and August 4, 2002. According to the pilot's training records, he received 3.0 hours of instruction in the PC-12/45 airplane and 7.5 hours of instruction in a PC-12/45 flight training device.

Portions of the pilot's flight records are included with the docket information associated with this factual report.

AIRCRAFT INFORMATION

The accident airplane was a Pilatus PC-12/45, serial number 425. The PC-12/45 is a single engine, turboprop, low-wing airplane. The PC-12/45 is equipped with a retractable tricycle landing gear and is powered by a single turboshaft engine. The fuselage and empennage is an all-metal semimonocoque design. The accident airplane was configured to seat six passengers and had two cockpit seats. The PC-12/45 has a certified maximum takeoff weight of 9,921 lbs and a maximum useful load of 4,454 lbs.

The accident airplane was issued a standard airworthiness certificate on November 16, 2001. The last inspection, an annual/100 hour inspection, was performed on July 26, 2002, at 505.4 hours total time. The aircraft had accumulated a total time of 560.4 hours as of August 30, 2002. The aircraft total time at the time of the accident could not be determined due to aircraft damage.

The PC-12/45 is equipped with inflatable neoprene boots on the leading edges of the wings and horizontal tail surfaces. Their purpose is to inflate and dispense any ice which may accumulate on their surfaces during flight in atmospheric icing conditions. The PC-12/45 is also equipped with a weather radar imaging system.

The airplane was equipped with a 1,200 shaft-horsepower Pratt & Whitney PT6A-67B engine, serial number PCE-PR0295. The last inspection of the engine was on July 26, 2002, at 505.4 hours total time and 433 cycles. The engine had accumulated a total time of 560.4 hours and 470 cycles as of August 30, 2002. The engine total time and cycles, at the time of the accident, could not be determined due to aircraft damage.

The propeller was a four-bladed Hartzell HC-E4A-3D/E10477K, hub serial number HJ-1611.

Airplane history and maintenance documentation is included with the docket material associated with this factual report.

METEOROLOGICAL INFORMATION

The closest weather reporting location to the accident site was located at the Jefferson City Memorial Airport (JEF), Jefferson City, Missouri, about 14 nautical miles (nm) northwest of the accident site. The airport is equipped with an Automated Surface Observing System (ASOS) and is augmented under a FAA contract with the National Weather Service (NWS). The following weather conditions were reported prior to and after the time of the accident:

At 1453 cdt: Wind 320 degrees true at 5 knots, visibility unrestricted at 10 statute miles (sm), a few clouds at 6,000 feet above ground level (agl), temperature 27 degrees Celsius, dew point 17 degrees Celsius, altimeter setting 29.91 inches-of-mercury. Remarks: lightning distant

southwest.

At 1545 cdt: Wind 310 degrees true at 8 knots, visibility 2-1/2 sm in heavy rain and mist, broken ceiling at 2,100 feet, second broken layer at 3,900 feet, and overcast at 6,500 feet, temperature 22 degrees Celsius, dew point 21 degrees Celsius, altimeter setting 29.92 inches-of-mercury. Remarks: rain began at 1537, precipitation accumulation of 0.03 inches.

At 1553 cdt: Wind 310 degrees true at 8 knots, visibility 3 sm in light rain and mist, broken ceiling at 2,100 feet, second broken layer at 4,800 feet, and overcast at 6,500 feet, temperature 22 degrees Celsius, dew point 21 degrees Celsius, altimeter setting 29.92 inches-of-mercury. Remarks: rain began at 1537, precipitation accumulation of 0.04 inches during previous hour.

The departure airport (AIZ) is located 29 nm west-southwest of the accident site. The airport is equipped with an Automated Weather Observation System (AWOS-III) that reported the following weather conditions prior to and after the time of the accident:

At 1555 cdt: Wind 360 degrees true at 4 knots, visibility 5 sm with thunderstorms in area, a few clouds at 400 feet agl, scattered clouds at 1,700 feet agl, broken ceiling at 4,400 feet agl, temperature 21 degrees Celsius, dew point 19 degrees Celsius, altimeter setting 29.95 inches-of-mercury. Remarks: thunderstorm began at 1553, precipitation accumulation of 0.11 inches during previous hour.

At 1615 cdt: Wind 300 degrees true at 5 knots, visibility 2 sm with thunderstorms in area, overcast ceiling at 400 feet agl, temperature 21 degrees Celsius, dew point 19 degrees Celsius, altimeter setting 29.97 inches-of-mercury. Remarks: thunderstorm ended at 1612 and began again at 1614, precipitation since last hourly report 0.09 inches.

The closest NWS Doppler weather radar system was located at St. Louis, Missouri, approximately 67 nm east-northeast from the accident site. Reflectivity data from different elevation scans was obtained from the weather radar system. Based on radar beam height calculations, the 1.45 degree elevation scan depicted the weather conditions encompassing the altitude between 10,260 to 17,370 feet msl, which also encompassed the altitude of the accident airplane. The reflectivity images, displayed in decibels (dBZ), relate to the intensity of the present weather conditions and rainfall rates.

The image for the time period 1551:56 to 1557:44 showed the departure airport covered with radar returns (echoes) in the range of 42 dBZ (level 3, or strong precipitation intensities), with echoes of 46.5 dBZ extending immediately north and west of the airport. A band of echoes, in the range of 15 to 39 dBZ (level 2, or light to moderate precipitation intensities), extended northeastward paralleling the accident airplane's route of flight. Other strong echoes in the range of 46 dBZ were located approximately 35 nm north, south-southwest, and west of the accident site.

The 1.45 degree elevation scan taken at 1553 depicted echoes from 15 to 30 dBZ (level 2, or light to moderate precipitation intensities) along the route of flight.

The NWS Surface Analysis Chart, issued at 1600 cdt for the central United States, depicted a trough of low pressure approaching the accident site from the north. This trough combined with an upper level trough, as depicted on constant pressure charts, generated the convective weather activity reported across south central Missouri, according to NWS information.

The closest upper air sounding was from Springfield, Missouri, located approximately 94 nm southwest of the accident site. The 1500 cdt upper air sounding indicated multiple cloud layers

with a lifted condensation level (LCL) near 3,200 feet msl, and saturated conditions between 11,500 and 19,000 feet msl. The freezing level (0-degrees Celsius) was identified beginning at approximately 13,500 feet, and a -10 Celsius temperature was indicated at 19,500 feet.

Several pilot reports (PIREPS) were recorded over Missouri near the time of the accident. The collected reports indicated there was light to moderate icing conditions between 14,000 to 24,000 feet msl. The reports indicated the clouds tops were between 21,000 and 24,500 feet msl. There was one report of occasional moderate turbulence at 10,000 feet msl.

The pilot of N451ES contacted the FAA St. Louis Automated Flight Service Station (AFSS) between 1447 and 1455 cdt to obtain a weather briefing and to file an IFR flight plan. The briefing included a synopsis of the current conditions, the forecast for the destination (SBN) and for the St. Louis area, and that an advisory was current for moderate rime or mixed icing conditions from 14,000 to 24,000 feet msl in clouds and precipitation. The briefer stated that no pilot reports were available and that he was unable to provide any cloud top information when asked by the pilot of N451ES.

The briefing then provided the current weather in the departure area and indicated that the AIZ AWOS was reporting thunderstorms with lightning in the vicinity with a broken ceiling at 6,000 feet agl. The pilot of N451ES confirmed the current weather conditions and asked about any significant change in intensity or coverage of the weather approaching the area. The briefer stated that the activity was beginning to get stronger in intensity and building. The briefing ended shortly thereafter, with the pilot indicating he was getting ready to depart in order to keep ahead of the approaching weather.

A transcription of the weather briefing is included with the docket information associated with this factual report. Additional weather information can be found in the Meteorology Factual Report included with the docket material associated with this factual report.

COMMUNICATIONS

The pilot was communicating with the Kansas City ARTCC during the accident flight. A transcription of the voice communications between ARTCC and N451ES is included with the docket material associated with this factual report.

FLIGHT RECORDERS

The accident airplane was not equipped, nor was it required to be equipped, with a cockpit voice recorder (CVR) or flight data recorder (FDR).

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board's on-scene investigation began on September 15, 2002.

A global positioning system (GPS) receiver was used to identify the position of the accident site as 38-degrees 22-minutes 19.62-seconds north latitude, 92-degrees 01-minutes 47.40-seconds west longitude. The aircraft impacted a densely populated oak forest. An explosion perimeter marked by deforestation measured 172 feet long by 220 feet wide.

An 18 foot long by 6 foot wide ground scar, orientated on a 220-degree magnetic heading, preceded a main impact crater. The main impact crater measured 12-feet long by 19-feet wide by 3.5-feet deep. Another ground scar measuring 25-feet long by 5-feet wide, orientated on a 220-degree magnetic heading, commenced from the main impact crater. The wreckage was

dispersed in a fan-shaped distribution field, with most of the wreckage located within 300 feet of the main impact crater. Some wreckage was found at distances exceeding 450 feet from the main crater.

The debris was recovered and relocated to a nearby facility for reconstruction efforts, due to the extensive damage and overall distribution of the wreckage. The wreckage was first sorted by airframe location and then repositioned under an exemplar Pilatus PC-12/45 for identification. The two-dimensional reconstruction determined that all primary airframe structural components, flight control surfaces, powerplant components, and propeller blades were present. A majority of the recovered wreckage exhibited fire and heat damage on both internal and external surfaces. Flight control continuity could not be established due to the extensive damage to all components. Inspection of the recovered flight control components did not exhibit any evidence of pre-impact malfunction. All four wing flap actuators were recovered and their positions were consistent with a fully retracted wing flap condition. Photo documentation of the aircraft wreckage reconstruction is included with the docket material associated with this factual report.

The engine displayed extensive impact and fire damage, including the disintegration of the reduction and accessory gearbox. The exhaust duct and gas generator displayed extensive compression deformation. The compressor rotor, compressor turbine, first-stage power turbine, and second-stage power turbine displayed circumferential rubbing with circumferential deformation. The second-stage blade airfoils were found fractured and their fracture features were consistent with the blades being in contact with their adjacent static components under impact loading. The coupling web for the reduction gearbox propeller shaft was fractured and the fracture features were consistent with torsional overload.

All four propeller blades were recovered and exhibited chordwise scratching, leading edge impact damage, and S-shaped blade twisting.

The standby attitude indicator gyro was recovered and disassembled. The gyro and its case showed evidence of rotational damage, consistent with the gyro rotating at the time of impact. The primary source of flight attitude information for the accident airplane was supplied by two Attitude & Heading Reference System (AHRS) units. Both AHRS units were destroyed during the accident, and as a result no information was available. The individual AHRS units are powered on separate electrical buses and either unit can be displayed on the two cockpit electronic flight instrumentation system (EFIS) displays.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was not performed on the remains of the pilot due to severity of the injuries sustained during the accident.

Toxicology samples for the pilot were submitted to the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma. A Forensic Toxicology Fatal Accident Report was prepared and the results were negative for all tests performed.

## TEST AND RESEARCH

An additional wreckage review was performed on November 6, 2002. The purpose of the wreckage review was to establish if any of the recovered electrical components contained viable non-volatile memory chips. None of the inspected components contained the specific memory chips and/or were damaged to an extent that prevented further investigation.

ADDITIONAL DATA/INFORMATION

The main wreckage was released to a representative of the owner on November 27, 2002. All retained components were returned to a representative of the owner on September 29, 2003.

Parties to the investigation included the FAA, Pilatus Aircraft Ltd, and Pratt & Whitney Canada.

## Pilot Information

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| **Certificate:** | Commercial | **Age:** | 32, Male |
| **Airplane Rating(s):** | Multi-engine Land; Single-engine Land | **Seat Occupied:** | Unknown |
| **Other Aircraft Rating(s):** | None | **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 1 Valid Medical--no waivers/lim. | **Last FAA Medical Exam:** | 09/05/2002 |
| **Occupational Pilot:** | | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 1645 hours (Total, all aircraft), 58 hours (Total, this make and model), 137 hours (Last 90 days, all aircraft), 39 hours (Last 30 days, all aircraft) | | |

## Aircraft and Owner/Operator Information

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|---|---|---|---|
| **Aircraft Make:** | Pilatus | **Registration:** | N451ES |
| **Model/Series:** | PC-12/45 | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | No |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 425 |
| **Landing Gear Type:** | Retractable - Tricycle | **Seats:** | 8 |
| **Date/Type of Last Inspection:** | 07/26/2002, Annual | **Certified Max Gross Wt.:** | 9921 lbs |
| **Time Since Last Inspection:** | | **Engines:** | 1 Turbo Prop |
| **Airframe Total Time:** | 505.4 Hours as of last inspection | **Engine Manufacturer:** | Pratt & Whitney Canada |
| **ELT:** | Installed, not activated | **Engine Model/Series:** | PT6A-67B |
| **Registered Owner:** | Pilatus Partners Ltd. | **Rated Power:** | 1200 hp |
| **Operator:** | Pilatus Partners Ltd. | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Instrument Conditions | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | JEF, 549 ft msl | **Distance from Accident Site:** | 14 Nautical Miles |
| **Observation Time:** | 1553 CDT | **Direction from Accident Site:** | 315° |
| **Lowest Cloud Condition:** | | **Visibility** | 3 Miles |
| **Lowest Ceiling:** | Broken / 2100 ft agl | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 8 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 310° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29.92 inches Hg | **Temperature/Dew Point:** | 22°C / 21°C |
| **Precipitation and Obscuration:** | | | |
| **Departure Point:** | Lake Ozark, MO (AIZ) | **Type of Flight Plan Filed:** | IFR |
| **Destination:** | South Bend, IN (SBN) | **Type of Clearance:** | IFR |
| **Departure Time:** | 1540 CDT | **Type of Airspace:** | Class E; Class G |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 Fatal | **Aircraft Damage:** | Destroyed |
| **Passenger Injuries:** | 1 Fatal | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | On-Ground |
| **Total Injuries:** | 2 Fatal | **Latitude, Longitude:** | 38.372222, -92.029722 |

## Administrative Information

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| **Investigator In Charge (IIC):** | Andrew T Fox | **Report Date:** | 10/28/2004 |
| **Additional Participating Persons:** | June L Tonsing; Federal Aviation Administration - St. Louis FSDO; St. Ann, MO<br>Markus Kohler; Pilatus Aircraft, Ltd.<br>Mark Wood; Pilatus Business Aircraft; Broomfield, CO<br>Thomas Berthe; Pratt & Whitney Canada; South Burlington, VT | | |
| **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 pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/. | | |