# Aviation Investigation Final Report

| | | | |
|---|---|---|---|
| **Location:** | Windham, Connecticut | **Accident Number:** | NYC07FA100 |
| **Date & Time:** | April 22, 2007, 15:43 Local | **Registration:** | N5651Y |
| **Aircraft:** | Piper PA-23-250 | **Aircraft Damage:** | Destroyed |
| **Defining Event:** | | **Injuries:** | 2 Fatal |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The pilot/owner and his pilot-rated passenger were on final approach to runway 27 when the wind increased and became gusty. Witnesses observed the airplane abort its landing approach, and enter a go-around attitude. The airplane climbed at an "unusually steep angle," and then turned to the left in a 50-degree bank. The airplane "stalled," rolled, and pitched nose-down until it reached a near vertical attitude, before impacting the ground. The witnesses reported that the airplane's engines were "revving" during the entire sequence, and examination of pictures taken by one of the witnesses revealed the flaps and landing gear were fully extended for the entire sequence. Examination of the airplane and engines revealed no preimpact mechanical anomalies. The pilot had accumulated 3,848 hours of total flight experience. The multiengine-rated passenger reported 1,141 hours of total flight experience. The winds reported at the airport, 8 minutes after the accident, were from 190 degrees at 10 knots, gusting to 17 knots. The winds were calm, or light and variable, all day, prior to the weather report issued 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's failure to maintain control of the airplane during a go-around.

### Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: GO-AROUND (VFR)

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
---

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

Findings
2. TERRAIN CONDITION - GROUND

## Factual Information

HISTORY OF FLIGHT

On April 22, 2007, at 1543 eastern daylight time, a Piper PA-23-250, N5651Y, was destroyed during an impact with terrain, and postcrash fire, near the Windham Airport (IJD), Windham, Connecticut. The certificated private pilot/owner and the commercial pilot-rated passenger were fatally injured. Visual meteorological conditions prevailed, and no flight plan was filed for the flight that originated at Brookhaven Airport (HWV), Shirley, New York. The personal flight was conducted under 14 Code of Federal Regulations Part 91.

According to a witness, who took photographs of the airplane in the traffic pattern, the winds were calm at the airport all day; however, approximately 1530, the wind increased and became gusty. The witness observed the accident airplane on final approach to runway 27. After momentarily diverting his attention to a helicopter on the other side of the airport, he turned back to the accident airplane, when he heard it "sound as if it was taking off again." The witness stated the airplane was climbing away from the runway at an "unusually steep angle," and then turned to the left at a 50-degree angle from the runway, into the wind. As the airplane reached an altitude of approximately 200 feet, it "appeared to stop in midair, while still at a steep angle." The witness stated that the airplane then started to turn left, "from its stalled position," and "appeared to start flying." The airplane then began to roll, and pitch nose down until it reached a near vertical attitude, and impacted the ground.

The witness additionally reported that the airplane's engines were "revving" during the entire sequence.

Examination of the photographs taken by the witness revealed the airplane in a go-around attitude with the flaps and landing gear fully extended for the entire sequence.

Several additional witnesses also observed the airplane in the traffic pattern. They all described the airplane in a "go-around attitude," followed by a left bank, and sharp nose-dive towards the ground. Several of the witnesses also noted that the airplane appeared to be "having difficulty" with the windy conditions.

PERSONNEL INFORMATION

The 82-year-old pilot/owner held a private pilot certificate with ratings for airplane single engine land, airplane multiengine land, and instrument airplane. His most recent Federal Aviation Administration (FAA) third-class medical certificate was issued on August 3, 2005. At that time, he reported 3,794 total hours of flight experience.

The pilot/owner's logbook was located in the wreckage. Examination of the logbook revealed entries from February 24, 2000 to April 8, 2007, with 3,421 hours of flight experience carried over from a previous logbook. As of the last entry, the pilot had accumulated 3,848 hours of total flight experience, all of which were in the accident airplane. During the previous 90 days, the pilot accumulated 20 hours of flight experience. According to the logbook entries, the pilot flew to IJD many times, with the most recent flight occurring on March 11, 2007.

The commercial pilot held ratings for airplane single engine land, airplane multiengine land, and instrument airplane. His most recent FAA second-class medical certificate was issued on October 1, 2005. At that time, he reported 1,141 hours of total flight experience.

## AIRCRAFT INFORMATION

The airframe, engine, and propeller logbooks were not located.

## METEOROLOGICAL INFORMATION

Weather reported at IJD, at 1552, included winds from 190 degrees at 10 knots, gusting to 17 knots, 10 miles visibility, sky clear, temperature 23 degrees Celsius, dew point -2 degrees Celsius, and a altimeter setting of 30.14 inches of mercury.

At 1452, the winds were reported as variable at 3 knots, and recorded weather data revealed the winds were calm, or light and variable, all day, prior to the 1552 recorded data.

## WRECKAGE AND IMPACT INFORMATION

The airplane impacted a wooded area, about 1/2-mile from the airport, adjacent to the westbound lanes of a four-lane public-use roadway (Route 6). The airplane came to rest in a nose-down attitude, with the empennage resting against a tree. The airplane was consumed by a postcrash fire, with the exception of the main wing spar, and both engines.

Examination of the cockpit throttle quadrant revealed the left throttle, propeller, and mixture controls were in the full forward position. The right throttle control was in the aft position, and the right propeller and mixture controls were in the mid-range position. Impact damage was also noted to the throttle quadrant.

Flight control continuity was confirmed from the area of the flight controls to the cockpit.

The engines were removed from the accident site and examined on April 24, 2007.

The right engine's crankshaft was rotated by hand at its propeller flange. Thumb compression and suction were obtained on all six cylinders, and valvetrain and crankshaft continuity were confirmed to the rear accessory drive section.

Examination of the right engine propeller assembly revealed one blade was bent aft at a 90-degree angle and the other blade was relatively straight.

The right magneto was tested and produced spark at all terminal leads. The left magneto was fire damaged and could not be tested. Examination of the top and bottom spark plugs revealed they sustained fire damage; however, their electrodes were intact and light gray in color.

The left engine could not initially be rotated at the propeller flange. However, after the starter and all six cylinders were removed, no preimpact mechanical anomalies were observed.

Examination of the left engine propeller assembly revealed one blade was S-bent, and one blade was relatively straight.

Both magnetos from the left engine were fire damaged and could not be tested for spark. Examination of the top and bottom spark plugs revealed they sustained fire damage; however, their electrodes were intact and light gray in color.

MEDICAL AND PATHOLOGICAL INFORMATION

The State of Connecticut, Office of the Chief Medical Examiner, performed autopsies on both pilots on April 23, 2007.

The FAA Toxicology and Accident Research Laboratory, Oklahoma City, Oklahoma conducted toxicological testing on both pilots.

According to the pilot/owner's toxicology test results, SALICYLATE was detected in the pilot's URINE.

No drugs were noted on the commercial pilot's toxicological test.

TESTS AND RESEARCH

A handheld Garmin GPSmap 296 unit, which was recovered from the wreckage, was sent to the Safety Board's Vehicle Recorder Laboratory for data extraction. Examination of the data revealed the airplane departed HWV at 1448, and proceeded direct to IJD.

The airplane entered the traffic pattern for runway 27, on the downwind leg, and proceeded on the base and final legs of the pattern. The airplane traveled about halfway down the runway, and then veered to the left, until the data stopped recording at 1342:12.

## Pilot Information

| | | | |
|---|---|---|---|
| **Certificate:** | Private | **Age:** | 82,Male |
| **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:** | Yes |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | Yes |
| **Medical Certification:** | Class 3 With waivers/limitations | **Last FAA Medical Exam:** | August 1, 2005 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | August 1, 2006 |
| **Flight Time:** | 3848 hours (Total, all aircraft), 20 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft) | | |

## Co-pilot Information

| | | | |
|---|---|---|---|
| **Certificate:** | Commercial | **Age:** | 45,Male |
| **Airplane Rating(s):** | Single-engine land; Multi-engine land | **Seat Occupied:** | Right |
| **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 2 With waivers/limitations | **Last FAA Medical Exam:** | October 1, 2005 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 1141 hours (Total, all aircraft) | | |

## Aircraft and Owner/Operator Information

| | | | |
|---|---|---|---|
| **Aircraft Make:** | Piper | **Registration:** | N5651Y |
| **Model/Series:** | PA-23-250 | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 27-2767 |
| **Landing Gear Type:** | Retractable - Tricycle | **Seats:** | 4 |
| **Date/Type of Last Inspection:** | Unknown | **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:** | TIO-540 |
| **Registered Owner:** | On file | **Rated Power:** | 250 Horsepower |
| **Operator:** | On file | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

| | | | |
|---|---|---|---|
| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | IJD,247 ft msl | **Distance from Accident Site:** | |
| **Observation Time:** | 15:52 Local | **Direction from Accident Site:** | |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 10 knots / 17 knots | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 190° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30.13 inches Hg | **Temperature/Dew Point:** | 23°C / -2°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | SHIRLEY, NY (HWV ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | Windham, CT (IJD ) | **Type of Clearance:** | None |
| **Departure Time:** | 14:52 Local | **Type of Airspace:** | |

## Airport Information

| | | | |
|---|---|---|---|
| **Airport:** | Windham Airport KIJD | **Runway Surface Type:** | Asphalt |
| **Airport Elevation:** | 247 ft msl | **Runway Surface Condition:** | Dry |
| **Runway Used:** | 27 | **IFR Approach:** | None |
| **Runway Length/Width:** | 4278 ft / 100 ft | **VFR Approach/Landing:** | Go around;Traffic pattern |

## Wreckage and Impact Information

| | | | |
|---|---|---|---|
| **Crew Injuries:** | 2 Fatal | **Aircraft Damage:** | Destroyed |
| **Passenger Injuries:** | | **Aircraft Fire:** | On-ground |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 2 Fatal | **Latitude, Longitude:** | 41.741943,-72.176109 |

## Administrative Information

| | |
|---|---|
| **Investigator In Charge (IIC):** | Andrews, Jill |
| **Additional Participating Persons:** | John Feliciano; FAA/FSDO; Windsor Locks , CT<br>Mike Childers; Lycoming Engines; Williamsport, PA<br>George Hollingsworth; Piper Aircraft; Vero Beach , FL |
| **Original Publish Date:** | June 30, 2008 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | The NTSB traveled to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=65643 |