



# Aviation Investigation Final Report

<b>Location:</b>	Rensselaer, Indiana	<b>Accident Number:</b>	CHI01FA256
<b>Date &amp; Time:</b>	August 4, 2001, 15:35 Local	<b>Registration:</b>	N30WS
<b>Aircraft:</b>	Beech E55	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane was destroyed when it was consumed by fire after the airplane made a low pass over a farmstead, impacted the top of a barn, traveled about 700 feet, and impacted the ground in a bean field. The airplane skidded on the ground for about 100 feet and was subsequently consumed by fire. The pilot and one passenger survived the initial impact and fire. The passenger was pronounced dead about 22 hours after the accident occurred. The pilot was pronounced dead on September 4, 2001. Two people were in the swimming pool located about 10 feet from the northwest edge of the barn when the airplane over flew the farmstead. They reported the airplane's engines were loud when the airplane hit the top of the barn that was about 27 feet in height. The farmstead was owned by the brother of the pilot. The post accident inspection of the airplane revealed no preexisting anomalies that could be associated with a pre-impact condition.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's ostentatious display when he buzzed the farmstead and did not maintain clearance from the barn.

## Findings

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

Findings

1. (C) BUZZING - PERFORMED - PILOT IN COMMAND
2. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
3. (C) OSTENTATIOUS DISPLAY - PILOT IN COMMAND
4. OBJECT - BUILDING(NONRESIDENTIAL)

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

## Factual Information

### HISTORY OF FLIGHT

On August 4, 2001, at 1535 central daylight time, a Beech E55, N30WS, was destroyed when it impacted the terrain and was consumed by fire near Rensselaer, Indiana. The 14 CFR Part 91 personal flight departed the Jasper County Airport (RZL), Rensselaer, Indiana, at 1530, and was en route to Collierville, Tennessee. The pilot and one passenger survived the initial impact and fire. Visual meteorological conditions prevailed. No flight plan was filed.

Witnesses reported the airplane made a low pass over a farmstead when the airplane impacted the top of a barn. The airplane traveled about 700 feet before impacting the ground in a bean field. The airplane skidded on the ground for about 100 feet and was subsequently consumed by fire.

A witness reported the airplane had departed RZL to the southwest at a low altitude. The farmstead where the accident occurred is located about five miles to the southwest of RZL and is owned by the brother of the pilot.

Two people were in the swimming pool located about 10 feet from the northwest edge of the barn when the airplane over flew the farmstead. They reported the airplane's engines were loud when the airplane hit the top of the barn that was about 27 feet in height.

Emergency responders arrived at the scene and transported the victims to the local hospital where they were later transported to hospitals in Fort Wayne, Indiana. The passenger was pronounced dead about 22 hours after the accident occurred. The pilot was hospitalized and treated for burns and impact injuries, but was pronounced dead on September 4, 2001.

### PERSONNEL INFORMATION

The pilot held an airline transport pilot certificate with single engine and multi-engine land, and instrument ratings. He held a First Class medical certificate dated April 9, 2001. The pilot reported his total flight time was 15,500 hours and had flown 300 hours in the last six months during his last medical examination. The pilot flew professionally for a major cargo operator, and he held type ratings in the DC-9 and DC-10. The pilot's logbooks were not recovered during the course of the investigation.

### AIRCRAFT INFORMATION

The airplane was a twin-engine Beech E55, Baron, serial number TE-960. The airplane seated six and had a maximum gross weight of 5,300 pounds. The engines were 285 horsepower

Continental IO-520C-7 engines. The airplane's logbooks were not recovered during the course of the investigation and the airplane's flight hours and maintenance history is unknown.

The airplane was topped off with 60.5 gallons of fuel on August 8, 2001. The airplane held 136 gallons of usable fuel.

#### METEOROLOGICAL INFORMATION

At 1453, the surface observation reported at Valparaiso (VPZ), Indiana, located about 36 miles to the north of the accident site were: winds 020 degrees at 5 knots, sky clear, temperature 84 degrees F, dew point 66 degrees F, altimeter 30.05.

#### WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was located in a bean field on County Road 1100 south approximately .5 mile east of County Road 1080 west, in Jasper County Indiana. The airplane initially impacted the top of a barn approximately 27 feet in height.

The wreckage path was on a heading of 183 degrees. Wreckage debris, including pieces of the left wing fuel bladder, was found in an area immediately south of the barn. A piece of engine nacelle skin and aluminum honeycomb material was found 193 feet from the barn. The left wing outboard of the engine nacelle and the empennage were found 30 feet apart and about 490 feet along the wreckage path. The right propeller was found with one blade buried in the ground at 698 feet along the wreckage path. The right engine was located 791 feet along the wreckage path. The main wreckage, which included the fuselage, cockpit, right wing, and the left wing out to the engine nacelle, was located about 810 feet along the wreckage path. The left engine was found about 900 feet from the initial impact point.

The left outboard wing section had a black transfer mark on the top surface of the wing. The gap seals of the leading edges of the left and right horizontal stabilizers were made of a black rubber material.

A separate section of the leading edge of the left wing that contained the cutout for the stall warning vane was found near the left wing. The section exhibited chordwise scrape marks on the lower side of the skin just below and aft of the stall warning vane. No crushing was exhibited on the leading edge of this section of wing.

The fuselage was found upright with the nose of the wreckage heading north. The right wing was found attached to the fuselage, but it was consumed by fire. The left nacelle and inboard wing were attached to the fuselage. The fuselage, cabin, and cockpit were destroyed by fire. The landing gear and the flaps were found in the up position.

The right propeller blades exhibited minimal leading edge damage or chordwise scratching. One blade was bent aft about six inches with no blade twist. The other blade exhibited no

blade twist or bending.

The left propeller remained attached to the engine. One blade was bent forward about 90 degrees and the other blade was bent aft. The blades exhibited minimal leading edge damage or chordwise scratching.

The left engine exhibited valve train continuity to all cylinders, and the accessory drive gears turned when the crankshaft was rotated. Thumb compression was observed on all cylinders except number 5 cylinder. The number 5 piston moved up and down in the cylinder when the crankshaft was rotated. Both magnetos were broken off the engine. The left magneto produced a spark on all six towers. The right magneto was not located. Fuel was found in the fuel distribution valve.

The left engine exhibited valve train continuity to all cylinders, and the accessory drive gears turned when the crankshaft was rotated. Thumb compression was observed on all cylinders. Both magnetos produced spark from all six towers. Fuel was found in the fuel distribution valve.

The examination of the flight control cables revealed the elevator cables exhibited continuity from the cockpit to the elevator bellcrank that was found with the main wreckage. The rudder cables exhibited continuity from the cockpit to the aft fuselage where both rudder cables were found separated with signatures consistent with tensile overload. The corresponding rudder cables that were found attached to the rudder attach terminals were also found separated with signatures consistent with tensile overload. The aileron cables exhibited continuity from the cockpit to the left aileron bellcrank swaged terminals. The left aileron bellcrank had one cable still attached to it, and the other bellcrank end was broken. The right aileron bellcrank had melted during the on-ground fire, but both cables had the swaged terminals and the bellcrank ends still attached to the cables.

The wreckage was found at the following coordinates:

#### Initial Impact

N 40 degrees, 51.135 minutes

W87 degrees, 14.560 minutes

#### Left Wing

N 40 degrees, 51.039 minutes

W87 degrees, 14.572 minutes

#### Right Propeller

N 40 degrees, 51.007 minutes

W87 degrees, 14.567 minutes

### Main Wreckage

N 40 degrees, 50.988 minutes

W87 degrees, 14.570 minutes

### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot at the Saint Joseph Hospital in Fort Wayne, Indiana, on September 4, 2001.

A Forensic Toxicology Fatal Accident Report was performed by the Federal Aviation Administration Civil Aeromedical Institute. (See Toxicology Report)

### ADDITIONAL INFORMATION

Parties to the investigation included the Federal Aviation Administration and Raytheon Aircraft Company.

The wreckage was released to the USAIG Insurance Company.

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight engineer	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	April 19, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	15500 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N30WS
<b>Model/Series:</b>	E55	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	TE-960
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520C-7
<b>Registered Owner:</b>	Donald R. Pettet	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	VPZ,771 ft msl	<b>Distance from Accident Site:</b>	36 Nautical Miles
<b>Observation Time:</b>	14:53 Local	<b>Direction from Accident Site:</b>	13°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	20°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 19°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	RENSELAER, IN (RZL )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	COLLIERVILLE, TN (48M )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:30 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 Fatal	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Fatal	<b>Latitude, Longitude:</b>	40.929183,-87.140197(est)



## Administrative Information

**Investigator In Charge (IIC):** Silliman, Jim

**Additional Participating Persons:** Eddie Webber; Raytheon; Wichita, KS  
Robert Helbing; FAA; South Bend, IN

**Original Publish Date:** October 24, 2002

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=52960>

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