



# Aviation Investigation Final Report

<b>Location:</b>	DAYTON, Ohio	<b>Accident Number:</b>	IAD98LA104
<b>Date &amp; Time:</b>	August 29, 1998, 22:05 Local	<b>Registration:</b>	N8349Y
<b>Aircraft:</b>	Piper PA-30	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot and passenger returned to their home airport after practicing landings at nearby airports. The pilot remembered an uneventful approach for the night landing on a 7,000-foot runway. The pilot could not remember the landing. The passenger reported to the airport police that '...[the pilot] was at the controls demonstrating a nighttime landing when they took a bad hop and crashed, landing upside down.' Examination of the wreckage revealed that, after departing the runway, the airplane struck the ground in a nose down attitude. The impact separated the nose gear and both engines from their mounts. The airplane subsequently nosed over and came to rest inverted.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate recovery from a bounced landing.

### Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

#### Findings

1. (C) RECOVERY FROM BOUNCED LANDING - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED  
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Occurrence #3: NOSE OVER  
Phase of Operation: LANDING - ROLL

## Factual Information

On August 29, 1998, at 2205 eastern daylight time, a Piper PA-30, N8349Y, was substantially damaged during landing at the Dayton International Airport (DAY), Dayton, Ohio. The certificated commercial pilot was seriously injured. The pilot rated passenger received minor injuries. Visual meteorological conditions prevailed for the personal flight that originated at Muncie, Indiana, at 2130. No flight plan was filed for the flight conducted under 14 CFR Part 91.

In a telephone interview with a Federal Aviation Administration (FAA) Safety Inspector, the pilot stated they flew to Muncie, Indiana (MIE), for practice landings, then flew to Richmond, Indiana (RID), for another landing before returning to Dayton.

The pilot stated the airplane was configured for landing on final approach to DAY and he expected "...a near perfect landing since the winds were calm." He said his next recollection was waking up in the hospital.

The airplane departed the left side of the landing runway, collided with terrain, nosed over, and came to rest inverted.

In a telephone interview with the FAA Inspector, the passenger stated his attention was inside the airplane as he announced "...airspeed, etc..." to the pilot. He was not looking outside. The copilot said the power increased and the "...aircraft pitched up and rotated left like a VMC stall." He remembered hearing metal crunching and seeing the ground through the windshield.

In a written statement, the passenger said:

"I was watching and reading out the airspeeds to the flying pilot [and] last remembered 118-115 knots. Then, the aircraft nose pitched up and I looked out. The aircraft started to cock right. I then went back to read the airspeed and I heard power come in. All I remember after that is a left turn and the ground coming up fast in the landing lights."

On the night of the accident, the passenger reported to the airport police that "...[the pilot] was at the controls demonstrating a nighttime landing when they took a bad hop and crashed, landing upside down."

Examination of photographs of the wreckage revealed extensive damage to the nose and the forward areas of both engine nacelles. The engine nacelles were crushed up and aft and both engines were separated from their mounts. The cockpit/cabin area above the wing box was crushed up and aft on both sides.

The nose gear was separated from its mounts, but still entangled in the nose compartment wreckage. The nose gear strut rested parallel to the ground and the nose wheel extended beyond the nose and 90 degrees forward of the forward down-lock position.

The blades of both propellers displayed similar twisting and bending. Both spinners displayed torsional twisting.

The pilot reported 5,000 hours of flight experience, 3,000 hours of which were in make and model. Weather reported the night of the accident was clear skies with winds from 250 degrees at 6 knots.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	75, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<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 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 9, 1997
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5000 hours (Total, all aircraft), 3000 hours (Total, this make and model), 5000 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8349Y
<b>Model/Series:</b>	PA-30 PA-30	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30-1496
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 16, 1997 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	27 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3766 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	IO-320-B1A
<b>Registered Owner:</b>	KENNETH L. RICHARDSON	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>	DAY ,1009 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	22:22 Local	<b>Direction from Accident Site:</b>	
<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>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	250°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 17°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	RICHMOND , IN (RID )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(DAY )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	21:30 Local	<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	DAYTON INTL AIRPORT DAY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1009 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	24L	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7000 ft / 150 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 Minor	<b>Latitude, Longitude:</b>	39.760292,-84.210296(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rayner, Brian
<b>Additional Participating Persons:</b>	JAMES L JACKSON; CINCINNATI , OH
<b>Original Publish Date:</b>	September 7, 2000
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=43858">https://data.nts.gov/Docket?ProjectID=43858</a>

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