



# National Transportation Safety Board

## Aviation Accident Data Summary

<b>Location:</b>	Columbus, OH	<b>Accident Number:</b>	IAD05LA093
<b>Date &amp; Time:</b>	07/01/2005, 2330 EDT	<b>Registration:</b>	N2842D
<b>Aircraft:</b>	Piper PA-28-181	<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

### Analysis

According to the private pilot, she had begun flying 3 weeks earlier after a 5-year layoff. She took off, with a flight instructor in the right seat, on a cross country flight that landed uneventfully at the outbound destination. She did not note any mechanical anomalies during the landing or taxi. The return leg, at night, was also uneventful; however, when turning onto the downwind leg, the private pilot advised the flight instructor that he needed to land the airplane because she wasn't sure of the "perspective." The flight instructor took over, and the private pilot kept her hands and feet off the controls while observing the nighttime runway environment. The flight instructor turned onto the base leg, then onto the final leg. The airplane appeared to be lined up with the center of the runway, and the private pilot turned on the landing light. The airplane landed on both main landing gear, with the flight instructor "holding the nose wheel off." The private pilot could not see out the front window, but it appeared that the airplane was veering to the right. She then heard the flight instructor say "oh shoot" and "something about the rudder." The airplane then "hit something" and bounced, but veered back to the left and stopped in the center of the runway. According to the flight instructor, during the return cross country leg, he noticed a few times that the airplane was deviating left of the intended heading. At some point, the private pilot stated that she couldn't trim the airplane. The flight instructor tried to trim it, and with the maximum right trim set, he still had to hold right rudder to maintain heading. The flight instructor maintained a right rudder input for the rest of the flight. At the destination airport, the weather was "clear with light to nil wind." On final approach, the flight instructor set the power between 1,700 and 1,800 rpm, and the airplane was stabilized at 70 knots and aligned with the center of the runway, both visually, and with the glide slope and localizer. The flight instructor held right rudder input, and adjusted the airplane's heading by easing off right rudder or holding it as required to keep the airplane aligned with the center of the runway. The flight instructor thought about using flaps, but decided not to because he wasn't sure if it might exaggerate the left-turning tendency. Approaching the runway, the flight instructor noted that the airplane was turning to the right, so he eased off some right rudder. At some point, he "totally removed right rudder pressure and started "the transition approach to land," but "for whatever reason, the aircraft turned to the right suddenly and unexpected." To keep the airplane over the runway, the flight instructor turned the controls to the left, and applied full left rudder, but did not notice any immediate response. He advised the private pilot and the passenger of what he was doing, and said, "the rudder is not responding" while initiating a go-around. The flight instructor then heard a "bang" as if the airplane had struck something, and the impact "forced the airplane more over and closer to the center of the runway." The flight instructor aborted the go-around, and landed. After landing, and while taxiing to the ramp, the flight instructor pressed the right and left rudder pedals several times, and noted that the right rudder pedal was much stiffer than the left. Photographs of the scene revealed three wheel tracks to the right of the runway, consistent with the width of the airplane's landing gear. The tracks veered off the runway, with the right main landing gear track passing next to the remnants of a 3,000-foot remaining sign. The tracks then gradually veered back toward the left, and on to a taxiway, toward the runway. The airplane was subsequently examined for

proper rigging, with no significant anomalies noted.

### Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's failure to maintain directional control during the landing rollout. A factor was the night lighting conditions.

### Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING - ROLL

#### Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND(CFI)
2. OBJECT - SIGN
3. (F) LIGHT CONDITION - NIGHT

### Flight Instructor Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	52
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Single-engine
<b>Flight Time:</b>	900 hours (Total, all aircraft), 25 hours (Total, this make and model), 800 hours (Pilot In Command, all aircraft)		

### Co-Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>			

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N2842D
<b>Model/Series:</b>	PA-28-181	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	National Flyer's Association	<b>Engine Manufacturer:</b>	Lycoming
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	O-360
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night
Observation Facility, Elevation:	OSU, 905 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:		Wind Speed/Gusts, Direction:	8 knots / , 360°
Temperature:	20° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Romeo, MI (D98)	Destination:	Columbus, OH (OSU)

## Airport Information

Airport:	Ohio State University (OSU)	Runway Surface Type:	Asphalt
Runway Used:	09L	Runway Surface Condition:	Dry
Runway Length/Width:	2994 ft / 100 ft		

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	40.079722, -83.073056		

## Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Adopted Date:	03/28/2006
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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