



# Aviation Investigation Final Report

<b>Location:</b>	Columbus, Ohio	<b>Accident Number:</b>	NYC03LA071
<b>Date &amp; Time:</b>	March 23, 2003, 15:15 Local	<b>Registration:</b>	N2968Z
<b>Aircraft:</b>	Piper PA-22-150	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The certified flight instructor (CFI) was providing flight instruction to the private pilot/owner of the tail-wheeled airplane. The CFI stated that the private pilot began the takeoff roll from the 5,500-foot-long, 100-foot-wide, asphalt runway. The airplane was almost at takeoff speed when it began to veer to the right. The CFI took control of the airplane, and attempted to correct; however, the airplane departed the right side of the runway, and ground-looped. The left main landing gear collapsed and the left wing struck the ground. Examination of the runway revealed a tire mark began about 350 feet from the beginning of the runway. A second parallel tire mark began to the left of the first tire mark, about 675 feet from the beginning of the runway, and both tire marks continued to the accident site. The airplane came to rest in a grass area, approximately 1,132 feet from the beginning of the runway. Both pilots were unsure if the private pilot had his feet positioned on the rudder pedals in such a way that he inadvertently applied brakes during the takeoff. Winds at the time of the accident were calm.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot under instruction's failure to maintain directional control, and the flight instructor's delayed remedial action.

## Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND(CFI)
2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - COPILOT/SECOND PILOT

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

3. TERRAIN CONDITION - GRASS

## Factual Information

On March 23, 2003, about 1515 eastern standard time, a Piper PA-22-150, N2968Z, was substantially damaged during takeoff from Bolton Field (TZR), Columbus, Ohio. The certificated flight instructor (CFI), a private pilot, and a passenger were not injured. Visual meteorological conditions prevailed and no flight plan had been filed for the flight destined for the Anderson Regional Airport (AND), Anderson, South Carolina. The instructional flight was conducted under 14 CFR Part 91.

According to the CFI, the tail-wheeled airplane was recently purchased by the private pilot, who was also his brother-in-law. The private pilot had not flown regularly since 1983, and the CFI provided the private pilot flight instruction in the airplane, the day before the accident.

During the accident flight, the CFI stated the private pilot began the takeoff roll from runway 22, a 5,500-foot-long, 100-foot-wide, asphalt runway. The airplane was almost at takeoff speed when it began to veer to the right. The CFI took control of the airplane, and attempted to correct; however, the airplane departed the right side of the runway, and ground-looped. The left main landing gear collapsed and the left wing struck the ground.

The CFI stated that they did not experience any mechanical malfunctions. He also said the takeoff was attempted with "very little wind." Winds reported at the airport, at 1525, were calm.

Examination of the runway by the Ohio State Highway Patrol revealed a tire mark began about 350 feet from the beginning of runway 22. A second parallel tire mark began to the left of the first tire mark, about 675 feet from the beginning of the runway, and both tire marks continued to the accident site. The airplane came to rest in a grass area, approximately 1,132 feet from the beginning of the runway.

During an interview with a Federal Aviation Administration inspector, both pilots were unsure if the private pilot had his feet positioned on the rudder pedals in such a way that he inadvertently applied brakes during the takeoff roll.

The CFI and private pilot reported 600 and 280 hours of flight experience in make and model; respectively.

## Flight instructor Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	61, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	November 12, 2002
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 4, 2001
<b>Flight Time:</b>	27000 hours (Total, all aircraft), 600 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	53, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	280 hours (Total, all aircraft), 280 hours (Total, this make and model), 1 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N2968Z
<b>Model/Series:</b>	PA-22-150	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-6943
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	November 10, 2002 Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	5 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2618 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	0320
<b>Registered Owner:</b>	Terry T. Kuebler	<b>Rated Power:</b>	150 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>	TZN,905 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	15:25 Local	<b>Direction from Accident Site:</b>	0°
<b>Lowest Cloud Condition:</b>	Scattered / 4300 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.93 inches Hg	<b>Temperature/Dew Point:</b>	15°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Columbus, OH (TZR)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	ANDERSON, SC (AND)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	15:15 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Bolton Field Airport TZR	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	905 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	22	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5500 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	39.901111,-83.136665

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Schiada, Luke
<b>Additional Participating Persons:</b>	Gordon L Smith; FAA FSDO-07; Columbus, OH
<b>Original Publish Date:</b>	February 5, 2004
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=56674">https://data.ntsb.gov/Docket?ProjectID=56674</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).