



# Aviation Investigation Final Report

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<b>Location:</b>	ARCHDALE, North Carolina	<b>Accident Number:</b>	ATL05CA146
<b>Date &amp; Time:</b>	August 16, 2005, 15:45 Local	<b>Registration:</b>	N8595C
<b>Aircraft:</b>	Piper 22	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

During an aborted takeoff, the airplane ground looped and nosed over 200 feet from the departure end of runway 03. The pilot stated that "after he rotated the airplane off of the ground at 55 knots, the airplane felt like it did not want to climb." He did not believe that he would be able to climb over trees at the departure end of the runway, so he decided to abort the takeoff with about 400 feet of runway left. During the aborted takeoff, the pilot landed the airplane back on the runway, ground looped the airplane, and the airplane came to rest 200 feet from the end of the runway. Post-accident examination of the airplane revealed that the airplane was inverted, nose gear bent aft, and engine firewall was buckled. The airplane also exhibited damage to the right wing, fuselage, propeller, and engine cowling. Post-accident examination of the flight control surfaces revealed no mechanical failures. The pilot did not report any mechanical malfunction with the airplane. Runway 03 at Johnson Field is a 2070 feet long by 75 feet wide. Performance data for the Piper 22 states that a normal takeoff ground roll is 950 feet and take takeoff to clear a 50 foot obstacle takes 1500 feet.

## 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 directional control during landing roll, which resulted in a nose over.

## Findings

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Occurrence #1: FORCED LANDING

Phase of Operation: TAKEOFF - ABORTED

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

1. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND
2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #3: ROLL OVER

Phase of Operation: LANDING - ROLL

## Factual Information

On August 16, 2005 at 1545 eastern daylight time, a Piper 22, N8595C, registered to and operated by a private owner, collided with the ground, and came to rest inverted, during an aborted takeoff at Johnson Field Airport, Archdale, North Carolina. The flight was operated under provisions of Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time of the accident and a flight plan was not filed. The airplane sustained substantial damage and the private pilot was not injured. The flight originated from Johnson Field, Archdale, North Carolina on August 16, 2005 at 1544.

The pilot was attempting to normal takeoff on runway 03 at Johnson Field, which is a 2070 feet long by 75 feet wide turf/gravel runway. The pilot stated that "after he rotated the airplane off of the ground at 55 knots, the airplane felt like it did not want to climb." The pilot did not believe that he would be able to climb over trees at the departure end of the runway, So, the pilot decided to abort the takeoff with about 400 feet of runway left. During the aborted takeoff, the pilot landed the airplane back on the runway, "ground looped the airplane, and came to rest 200 feet from the end of the runway.

Post-accident examination of the airplane revealed that the airplane was inverted, nose gear bent aft, and engine firewall was buckled. The airplane also exhibited damage to the right wing, fuselage, propeller, and engine cowling. Post-accident examination of the flight control surfaces revealed no mechanical failures. The pilot did not report any mechanical malfunction with the airplane. Performance data for the Piper 22 states that a normal takeoff ground roll is 950 feet and take takeoff to clear a 50 foot obstacle takes 1500 feet.

### Pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	36, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 None	<b>Last FAA Medical Exam:</b>	June 1, 2003
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	June 1, 2004
<b>Flight Time:</b>	20 hours (Total, all aircraft), 20 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N8595C
<b>Model/Series:</b>	22	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	22-1266
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	1850 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	0-290 SERIES
<b>Registered Owner:</b>	HARRIS KEITH	<b>Rated Power:</b>	135 Horsepower
<b>Operator:</b>	KEITH HARRIS	<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>	GSO,926 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	14:54 Local	<b>Direction from Accident Site:</b>	359°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	9 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	34°C / 23°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ARCHDALE, NC (72A )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	ARCHDALE, NC	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:44 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	JOHNSON FIELD 72A	<b>Runway Surface Type:</b>	Grass/turf;Gravel
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	03	<b>IFR Approach:</b>	Visual
<b>Runway Length/Width:</b>	2070 ft / 75 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<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 None	<b>Latitude, Longitude:</b>	35.835556,-79.925277

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Powell, Phillip
<b>Additional Participating Persons:</b>	Tom Harmon; GSO FSDO-05
<b>Original Publish Date:</b>	December 20, 2005
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=62380">https://data.nts.gov/Docket?ProjectID=62380</a>

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