# Aviation Investigation Final Report

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| **Location:** | Apex, North Carolina | **Accident Number:** | ERA24LA213 |
| **Date & Time:** | May 1, 2024, 16:40 Local | **Registration:** | N6872H |
| **Aircraft:** | Piper J3C-65 | **Aircraft Damage:** | Substantial |
| **Defining Event:** | Loss of control on ground | **Injuries:** | 1 Minor, 1 None |
| **Flight Conducted Under:** | Part 91: General aviation - Instructional | | |

## Analysis

The flight instructor reported that after conducting maneuvers in the area for about 30 minutes, he returned to the airport to demonstrate the first landing of the flight. He reported that upon touchdown on the grass runway, the brakes “were not effective” and the airplane veered off the runway to the left into a utility trailer that was parked near the runway. The fuselage sustained substantial damage.

The private pilot receiving instruction, seated in the rear seat, reported that the approach and landing appeared normal, and the flight instructor completed a 3-point landing. He recalled that the flight instructor was unable to get the airplane to stop, and he believed the brakes were not effective given they had “plenty of runway to stop.”

A Federal Aviation Administration inspector examined the airplane and brake system. The left wheel was rotated, and the left brake pedal when actuated, was observed to stop the wheel movement. The right brake pedal was bound and no longer fully functional due to impact related damage. Its actuator plunger was manipulated via a screwdriver, and right wheel movement was stopped, but not with the same amount of force as compared to the functional left brake pedal. The brake system’s fluid was normal. Neither pilot reported any issues with the brakes prior to takeoff.

The effectiveness of the brake system could not be determined, due to the damage sustained to the right brake pedal during the impact with the trailer.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The loss of directional control during the landing roll for reasons that could not be determined, due to impact damage sustained to the brake system.

## Findings

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| **Not determined** | (general) - Unknown/Not determined |

# Factual Information

## History of Flight

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| **Landing-landing roll** | Loss of control on ground (Defining event) |
| **Landing-landing roll** | Collision with terr/obj (non-CFIT) |

## Flight instructor Information

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|---|---|---|---|
| **Certificate:** | Airline transport; Commercial | **Age:** | 63,Male |
| **Airplane Rating(s):** | Single-engine land; Multi-engine land | **Seat Occupied:** | Front |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | Lap only |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | Yes |
| **Instructor Rating(s):** | Airplane single-engine; Instrument airplane | **Toxicology Performed:** | |
| **Medical Certification:** | Class 1 With waivers/limitations | **Last FAA Medical Exam:** | January 24, 2024 |
| **Occupational Pilot:** | Yes | **Last Flight Review or Equivalent:** | March 22, 2024 |
| **Flight Time:** | 11262 hours (Total, all aircraft), 20 hours (Total, this make and model), 9878 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft) | | |

## Pilot Information

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| **Certificate:** | Private | **Age:** | 46,Male |
| **Airplane Rating(s):** | Single-engine land | **Seat Occupied:** | Rear |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | Lap only |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | Yes |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | |
| **Medical Certification:** | Class 3 With waivers/limitations | **Last FAA Medical Exam:** | June 19, 2023 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | July 16, 2022 |
| **Flight Time:** | 521 hours (Total, all aircraft), 1 hours (Total, this make and model), 422 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | Piper | **Registration:** | N6872H |
| **Model/Series:** | J3C-65 NO SERIES | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | 1946 | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 20089 |
| **Landing Gear Type:** | Tailwheel | **Seats:** | 2 |
| **Date/Type of Last Inspection:** | March 26, 2024 Annual | **Certified Max Gross Wt.:** | 1280 lbs |
| **Time Since Last Inspection:** | 41 Hrs | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | 3735 Hrs as of last inspection | **Engine Manufacturer:** | Continental Motors |
| **ELT:** | C91 installed, activated, aided in locating accident | **Engine Model/Series:** | A-65-8 |
| **Registered Owner:** | On file | **Rated Power:** | 65 Horsepower |
| **Operator:** | On file | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | RDU,435 ft msl | **Distance from Accident Site:** | 9 Nautical Miles |
| **Observation Time:** | 16:51 Local | **Direction from Accident Site:** | 30° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | / | **Turbulence Type Forecast/Actual:** | None / None |
| **Wind Direction:** | | **Turbulence Severity Forecast/Actual:** | N/A / N/A |
| **Altimeter Setting:** | 29.92 inches Hg | **Temperature/Dew Point:** | 29°C / 14°C |
| **Precipitation and Obscuration:** | | | |
| **Departure Point:** | Apex, NC | **Type of Flight Plan Filed:** | None |
| **Destination:** | Apex, NC | **Type of Clearance:** | None |
| **Departure Time:** | | **Type of Airspace:** | Class G |

## Airport Information

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| **Airport:** | Cox Airport NC81 | **Runway Surface Type:** | Grass/turf |
| **Airport Elevation:** | 455 ft msl | **Runway Surface Condition:** | Dry;Vegetation |
| **Runway Used:** | 27 | **IFR Approach:** | None |
| **Runway Length/Width:** | 2450 ft / 75 ft | **VFR Approach/Landing:** | Traffic pattern |

## Wreckage and Impact Information

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|---|---|---|---|
| **Crew Injuries:** | 1 Minor, 1 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | N/A | **Aircraft Fire:** | None |
| **Ground Injuries:** | | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Minor, 1 None | **Latitude, Longitude:** | 35.751818,-78.859729 |

## Administrative Information

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| **Investigator In Charge (IIC):** | Gerhardt, Adam |
| **Additional Participating Persons:** | Mark C. Allen; FAA/FSDO; Greensboro, NC |
| **Original Publish Date:** | August 30, 2024 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class 4 |
| **Note:** | The NTSB did not travel to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=194227 |