



# Aviation Investigation Final Report

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<b>Location:</b>	Raleigh, North Carolina	<b>Accident Number:</b>	ATL02LA006
<b>Date &amp; Time:</b>	October 11, 2001, 20:30 Local	<b>Registration:</b>	N44RA
<b>Aircraft:</b>	Beech BE-55-T42A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

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## Analysis

During landing, the airplane bounced three times on the nosewheel with each successive bounce worse than the previous one. The pilot then added power and completed the landing. The airplane sustained damage to the nose gear, blade tips of the left propeller, left engine mount, and the fuselage forward of the cabin door. No mechanical problems were noted during the post-crash airframe examination, nor did the pilot report a mechanical problem with the airplane during the landing.

## Probable Cause and Findings

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

## Findings

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Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND
2. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND

## Factual Information

On October 11, 2001, at 2030 eastern daylight time, a Beech BE-55-T42A, N44RA, registered to Bellefonte, Inc., of Durham, North Carolina, bounced three times on the nosewheel during landing at Raleigh-Durham International airport in Raleigh, North Carolina. The repositioning flight was operated under the provisions of Title 14 CFR Part 91 with an IFR flight plan filed. Visual meteorological conditions prevailed at the time of the accident. The commercial pilot was not injured, and the airplane sustained substantial damage. The flight departed Charlotte-Douglas International airport in Charlotte, North Carolina, at 1930.

According to the pilot, while conducting a visual approach to runway 23R, "on short final the power was reduced and the nosewheel hit first." He stated that "this was the first of three bounces each worse than the last." The pilot added power to complete the landing and taxied the airplane to the tie-down area.

The post-accident examination of the airplane revealed no evidence of mechanical malfunction nor did the pilot report a mechanical problem with the airplane during the attempted landing. Further examination of the airplane showed that the propeller blade tips of the left propeller and the nose gear had sustained damage. The left engine mount was bent, the fuselage forward of the cabin door showed wrinkling that extended from the windscreen down both sides of the fuselage, and the nose was displaced upward.

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	February 16, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 7, 2000
<b>Flight Time:</b>	2080 hours (Total, all aircraft), 230 hours (Total, this make and model), 118 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N44RA
<b>Model/Series:</b>	BE-55-T42A	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	TC-916
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	October 11, 2001 100 hour	<b>Certified Max Gross Wt.:</b>	5000 lbs
<b>Time Since Last Inspection:</b>	3 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	10555 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-470-L
<b>Registered Owner:</b>	Bellefonte, Inc.	<b>Rated Power:</b>	265 Horsepower
<b>Operator:</b>	Ram Air Freight, Inc.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	FFKA

## 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>	RDU,436 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	20:25 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>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	150°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.21 inches Hg	<b>Temperature/Dew Point:</b>	17°C / 13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Charlotte, NC (CLT )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Raleigh-Durham, NC (RDU )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	19:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Raleigh-Durham International RDU	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	436 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	23R	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	10000 ft / 150 ft	<b>VFR Approach/Landing:</b>	Straight-in

## 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>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wilson, Butch
<b>Additional Participating Persons:</b>	Richard M Litka; FAA - Greensboro FSDO-05; Greensboro, NC
<b>Original Publish Date:</b>	September 9, 2002
<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=53700">https://data.nts.gov/Docket?ProjectID=53700</a>

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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](#).