



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Wingate, NC	<b>Accident Number:</b>	ERA12CA095
<b>Date &amp; Time:</b>	12/01/2011, 1200 EST	<b>Registration:</b>	N216TV
<b>Aircraft:</b>	BELL 206L-3	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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## Analysis

The certified flight instructor (CFI) was demonstrating a touchdown autorotation from an altitude of 1,500 feet above ground level to a turf runway. He stated that, during the maneuver, the helicopter's sink rate seemed high, so he continued to pull pitch to arrest the descent rate. The helicopter touched down with a slight forward speed on a downhill slope, and the rear portion of the skids became momentarily stuck in the soft turf. The helicopter pitched forward after breaking loose from the turf, and the main rotor blade contacted the vertical stabilizers and tail rotor drive shaft cover, resulting in substantial damage. The CFI stated that there were no mechanical malfunctions or anomalies with the helicopter.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The certified flight instructor did not select an adequate landing site for the practice autorotation.

## Findings

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<b>Personnel issues</b>	Decision making/judgment - Pilot (Cause)
<b>Environmental issues</b>	Terrain - Decision related to condition (Cause) Sloped/uneven terrain - Contributed to outcome

## Factual Information

### History of Flight

Autorotation	Miscellaneous/other (Defining event)
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### Flight Instructor Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Flight Engineer; Military	<b>Age:</b>	66, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Helicopter; Instrument Airplane; Instrument Helicopter	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With Waivers/Limitations	<b>Last Medical Exam:</b>	05/30/2011
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	11/15/2011
<b>Flight Time:</b>	15456 hours (Total, all aircraft), 1400 hours (Total, this make and model), 8447 hours (Pilot In Command, all aircraft), 23 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

### Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	47, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With Waivers/Limitations	<b>Last Medical Exam:</b>	02/22/2011
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	7500 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BELL	Registration:	N216TV
Model/Series:	206L-3	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	51166
Landing Gear Type:	High Skid	Seats:	7
Date/Type of Last Inspection:	04/22/2011, 100 Hour	Certified Max Gross Wt.:	4150 lbs
Time Since Last Inspection:		Engines:	1 Turbo Shaft
Airframe Total Time:	8021 Hours	Engine Manufacturer:	Rolls Royce
ELT:	Not installed	Engine Model/Series:	250C30P
Registered Owner:	U S HELICOPTERS INC	Rated Power:	650 hp
Operator:	U S HELICOPTERS INC	Air Carrier Operating Certificate:	On-demand Air Taxi (135)

## Meteorological Information and Flight Plan

Observation Facility, Elevation:	EQY, 679 ft msl	Observation Time:	1153 EST
Distance from Accident Site:	10 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	250°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	10° C / -2° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	30.33 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wingate, NC (N46)	Type of Flight Plan Filed:	Company VFR
Destination:	Wingate, NC (N46)	Type of Clearance:	None
Departure Time:	1140 EST	Type of Airspace:	

## Airport Information

Airport:	US Helicopters Heliport (N46)	Runway Surface Type:	
Airport Elevation:	660 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Simulated Forced Landing

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None		

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Eric Alleyne	<b>Adopted Date:</b>	03/27/2012
<b>Additional Participating Persons:</b>	Robert Reynolds; FAA/FSDO; Charlotte, NC		
<b>Publish Date:</b>	03/27/2012		
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82441">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82441</a>		

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