



# Aviation Investigation Final Report

<b>Location:</b>	HURST, Texas	<b>Accident Number:</b>	FTW97LA361
<b>Date &amp; Time:</b>	September 23, 1997, 10:10 Local	<b>Registration:</b>	N9264G
<b>Aircraft:</b>	Bell 206-L4	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

While the commercial pilot was terminating a practice straight-in autorotation, he initiated a flare and applied initial collective pitch to slow the helicopter's rate-of-closure. The aircraft touched down 'firm' with a 'slight nose high attitude,' and then a strong short shudder was felt as the aircraft slid to a stop within one helicopter length. The main rotor RPM was between 65 to 70 percent. The flight instructor examined the tailboom for damage before continuing with the the training flight. After completion of the planned maneuvers, the helicopter was flown to the Bell Helicopter Plant 8 Heliport and shut down. During a postflight inspection, wrinkles were found on the sides of the tail boom. The winds were reported from 180 degrees at 10 knots, and the density altitude was calculated at 2,401 feet.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The improper touchdown by the commercial pilot receiving instruction. A factor was the flight instructor's inadequate supervision.

## Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings  
1. EMERGENCY PROCEDURE - SIMULATED - DUAL STUDENT

2. (C) TOUCHDOWN - IMPROPER - DUAL STUDENT
3. (F) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
4. MISC ROTORCRAFT, TAIL BOOM - BUCKLED

## Factual Information

On September 23, 1997, at 1010 central daylight time, a Bell 206-L4 helicopter, N9264G, registered to Textron Financial Corporation and operated by Bell Helicopter Textron, was substantially damaged during landing to the south at the BHT2 Training Strip, Hurst, Texas. The airline transport rated flight instructor and the commercial pilot receiving instruction, were not injured. Visual meteorological conditions prevailed, and a company flight plan was filed for the Title 14 CFR Part 91 instructional flight. The flight originated from the Bell Helicopter Plant 8 Heliport, about 10 minutes before the accident.

According to the flight instructor, the student was performing straight-in autorotations to the south. While the student was terminating a straight-in autorotation, he initiated a flare and applied initial collective pitch to slow the helicopter's rate-of-closure. The aircraft touched down "firm" with a "slight nose high attitude," and then a strong short shudder was felt as the aircraft slid to a stop within one helicopter length. The main rotor RPM was between 65 to 70 percent.

The flight instructor added that after the landing, he examined the tailboom for damage. No damage was found and the training flight was continued. The flight instructor stated that "we were at the end of the period and left the practice area for the hill top [Bell Helicopter Plant 8 Heliport], did 4 slope operations and then parked the helicopter." During the post flight inspection of the helicopter, wrinkles were found on the sides of the tailboom.

The winds were reported from 180 degrees at 10 knots, and the density altitude was calculated at 2,401 feet.

## Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	61, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Helicopter; Instrument helicopter	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	March 26, 1997
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10000 hours (Total, all aircraft), 3500 hours (Total, this make and model), 9000 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N9264G
<b>Model/Series:</b>	206-L4 206-L4	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	52081
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	August 7, 1997 Annual	<b>Certified Max Gross Wt.:</b>	4450 lbs
<b>Time Since Last Inspection:</b>	53 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	1187 Hrs	<b>Engine Manufacturer:</b>	Allison
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	250-C30
<b>Registered Owner:</b>	TEXTRON FINANCIAL CORPORATION	<b>Rated Power:</b>	650 Horsepower
<b>Operator:</b>	BELL HELICOPTER TEXTRON, INC.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<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>	10 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	29°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(2F2 )	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	BHT2 TRAINING STRIP 2F2	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	524 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Simulated forced landing;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 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>	2 None	<b>Latitude, Longitude:</b>	32.829524,-97.17028(est)

## Administrative Information

Investigator In Charge (IIC):	Wigington, Douglas
Additional Participating Persons:	LARRY G WILKINSON; FORT WORTH , TX
Original Publish Date:	November 6, 1998
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=20356">https://data.nts.gov/Docket?ProjectID=20356</a>

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