



# Aviation Investigation Final Report

<b>Location:</b>	ODESSA, Texas	<b>Accident Number:</b>	FTW87GA083
<b>Date &amp; Time:</b>	March 21, 1987, 16:00 Local	<b>Registration:</b>	N62462
<b>Aircraft:</b>	BELL 47G-3B-1	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Public aircraft		

## Analysis

INVESTIGATION REVEALS THE HELICOPTER TOUCHED DOWN ON THE HEEL OF ITS SKIDS, LEFT SKID FIRST, AND AT A SLIGHTLY LOW ROTOR RPM. THE TAIL BOOM THEN MOVED UPWARD WHILE THE MAIN ROTOR BLADES FLEXED DOWNWARD. THE MAIN ROTOR BLADES CONTACTED AND SEVERED THE TAIL BOOM, ALLOWING THE TAIL ROTOR ASSEMBLY TO FALL TO THE GROUND. FRESH MARKS WERE NOTED ON THE MAIN ROTOR HUB ASSEMBLY WHERE IT HAD BANGED AGAINST THE MAIN ROTOR DROOP STOPS.

## Probable Cause and Findings

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

### Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

#### Findings

1. (F) AUTOROTATION - PERFORMED - PILOT IN COMMAND
  2. AUTOROTATION - IMPROPER - PILOT IN COMMAND
  3. (C) ROTOR RPM - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: PROPELLER/ROTOR CONTACT TO PERSON

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (C) FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	42, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<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 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 25, 1986
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	119 hours (Total, all aircraft), 82 hours (Total, this make and model), 65 hours (Pilot In Command, all aircraft), 34 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL	<b>Registration:</b>	N62462
<b>Model/Series:</b>	47G-3B-1 47G-3B-1	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	3756
<b>Landing Gear Type:</b>	High skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	March 13, 1987 100 hour	<b>Certified Max Gross Wt.:</b>	2950 lbs
<b>Time Since Last Inspection:</b>	15 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-435-25A
<b>Registered Owner:</b>	ECTOR COUNTY TX SHERIFFS DEPT	<b>Rated Power:</b>	250 Horsepower
<b>Operator:</b>		<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>	MAF ,3003 ft msl	<b>Distance from Accident Site:</b>	11 Nautical Miles
<b>Observation Time:</b>	15:51 Local	<b>Direction from Accident Site:</b>	75°
<b>Lowest Cloud Condition:</b>	Scattered / 4500 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	110°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ODESSA , TX (E02 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	ODESSA , TX (E02 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:15 Local	<b>Type of Airspace:</b>	Airport advisory area

## Airport Information

<b>Airport:</b>	ODESSA/SCHLEMEYER E02	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Simulated forced landing;Straight-in

## 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>	31.910995,-102.259788(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Johnson, J
<b>Additional Participating Persons:</b>	RICHARD F MARTZ; LUBBOCK , TX
<b>Original Publish Date:</b>	March 30, 1988
<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=22282">https://data.nts.gov/Docket?ProjectID=22282</a>

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