



# Aviation Investigation Final Report

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<b>Location:</b>	Prairie Lea, Texas	<b>Accident Number:</b>	GAA15CA232
<b>Date &amp; Time:</b>	July 16, 2015, 08:30 Local	<b>Registration:</b>	N804DF
<b>Aircraft:</b>	ROBINSON HELICOPTER COMPANY R44 II	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Low altitude operation/event	<b>Injuries:</b>	3 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The helicopter pilot reported that while flying at a low altitude and low airspeed, over tree-covered terrain, he made a steep left turn downwind, and the low rotor rpm horn sounded. He stated that he lowered the collective slightly and rolled on throttle, but the helicopter descended and impacted trees and terrain.

The pilot reported that he completed a damage assessment and flew the helicopter to his home airport without further incident. Substantial damage was sustained to the helicopter left aft fuselage frame assembly.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain rotor rpm, resulting in an uncontrolled descent and collision with trees.

## Findings

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<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Prop/rotor parameters - Not attained/maintained
<b>Aircraft</b>	Altitude - Not attained/maintained
<b>Environmental issues</b>	Tailwind - Effect on equipment

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Low altitude operation/event (Defining event)
<b>Uncontrolled descent</b>	Attempted remediation/recovery
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	61
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	December 8, 2014
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	September 1, 2014
<b>Flight Time:</b>	(Estimated) 6750 hours (Total, all aircraft), 1745 hours (Total, this make and model), 6750 hours (Pilot In Command, all aircraft), 61 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Passenger Information

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROBINSON HELICOPTER COMPANY	<b>Registration:</b>	N804DF
<b>Model/Series:</b>	R44 II II	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	2006	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	11265
<b>Landing Gear Type:</b>	N/A; Skid	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	May 1, 2015 Annual	<b>Certified Max Gross Wt.:</b>	2500 lbs
<b>Time Since Last Inspection:</b>	53 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1785.7 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91A installed, not activated	<b>Engine Model/Series:</b>	IO-540-AE1A5
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	Certificate of authorization or waiver (COA)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KHYI,597 ft msl	<b>Distance from Accident Site:</b>	12 Nautical Miles
<b>Observation Time:</b>	13:47 Local	<b>Direction from Accident Site:</b>	337°
<b>Lowest Cloud Condition:</b>	Scattered / 1400 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2300 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	11 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.02 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 22°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Fentress, TX (X590)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Fentress, TX (X590)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:45 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 Minor	<b>Latitude, Longitude:</b>	29.713054,-97.77639(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Michael
<b>Additional Participating Persons:</b>	Thomas C Fowles; FAA; San Antonio, TX
<b>Original Publish Date:</b>	December 17, 2015
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=91827">https://data.nts.gov/Docket?ProjectID=91827</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).