



# **Aviation Investigation Final Report**

Location: Killeen, Texas Accident Number: DFW08CA114

Date & Time: April 23, 2008, 17:50 Local Registration: N9064N

Aircraft: Hughes 269A Aircraft Damage: Substantial

**Defining Event:** Loss of control in flight **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

#### **Analysis**

While practicing an autorotation maneuver, the pilot rolled the throttle back on and began a power recovery before reducing the throttle to continue the autorotation. The helicopter's airspeed decreased to approximately 40 knots at 300 feet above ground level (AGL). The pilot attempted to go-around but was unable to increase the rotor RPM (rotations per minute.) The helicopter continued to sink as the flight instructor attempted to increase power and reduce the sink rate. The flight instructor lowered the helicopter's nose in an attempt to increase airspeed. At 50 feet AGL the pilot reported that a gust of wind decreased the helicopter's airspeed further resulting in an increased sink rate. The flight instructor flared the helicopter as it approached the ground. The helicopter contacted the ground and rolled coming to rest on its side.

#### **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 main rotor RPM and a safe rate of descent during the autorotation. A contributing factor was the gusty winds.

#### **Findings**

Aircraft Prop/rotor parameters - Incorrect use/operation

Environmental issues Gusts - Not specified

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## **Factual Information**

## History of Flight

Autorotation	Loss of control in flight (Defining event)
Landing	Hard landing

### Flight instructor Information

Certificate:	Commercial; Flight instructor; Private	Age:	30,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	April 1, 2007
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 1, 2007
Flight Time:	515 hours (Total, all aircraft), 250 hours (Total, this make and model), 480 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### **Student pilot Information**

Certificate:	Private	Age:	43,Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	June 1, 2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 1, 2006
Flight Time:	150 hours (Total, all aircraft), 80 hours (Total, this make and model), 100 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	Hughes	Registration:	N9064N
Model/Series:	269A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	96-0657
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	February 1, 2008 Annual	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:	56 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7327 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	HIO-360-BIA
Registered Owner:	Vista Aviation LLC	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ILE,848 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	17:15 Local	Direction from Accident Site:	360°
<b>Lowest Cloud Condition:</b>	5000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 5000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	18 knots / 28 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.84 inches Hg	Temperature/Dew Point:	29°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Killeen, TX (ILE )	Type of Flight Plan Filed:	None
Destination:	Killeen, TX (ILE)	Type of Clearance:	None
Departure Time:	04:45 Local	Type of Airspace:	

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# **Airport Information**

Airport:	Runway Surface Type:
Airport Elevation:	Runway Surface Condition:
Runway Used:	IFR Approach: None
Runway Length/Width:	VFR Approach/Landing:

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	31.085832,-97.686386

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#### **Administrative Information**

Investigator In Charge (IIC):	Gamble, William
Additional Participating Persons:	Thomas A Hennessee; Fort Worth
Original Publish Date:	May 28, 2008
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=67877

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.

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