



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Ozark, AL	<b>Accident Number:</b>	ERA16LA326
<b>Date &amp; Time:</b>	09/22/2016, 1630 CDT	<b>Registration:</b>	N269BS
<b>Aircraft:</b>	HUGHES 269B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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## Analysis

The flight instructor stated that the helicopter was in cruise flight at 75 mph and 800 ft mean sea level when he announced "simulated engine failure" and reduced the throttle and collective. The student pilot responded to the simulated emergency by establishing an autorotation and cross-checking the instruments, which were all "normal" or "in the green." During recovery of the maneuver at 100 ft above ground level, the instructor noted the engine rpm was "zero," announced an actual engine failure, joined the student pilot on the flight controls, and completed the autorotation to the ground. At touchdown, the helicopter bounced on the right front skid and rolled onto its right side. The helicopter was recovered to the operator's facility, where an engine start was attempted on the airframe using the helicopter's battery and starter. The engine started immediately and ran smoothly without interruption until manually shut down.

## Probable Cause and Findings

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

A total loss of engine power for reasons that could not be determined following a successful postaccident engine run on the accident helicopter.

## Findings

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Not determined	Not determined - Unknown/Not determined (Cause)
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## Factual Information

On September 22, 2016, at 1630 central daylight time, a Hughes 269B helicopter, N269BS, was substantially damaged during a forced landing following a loss of engine power near Ozark, Alabama. The flight instructor and student pilot sustained minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the local instructional flight conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

The flight instructor and the student pilot each provided written statements, and their accounts of the accident were consistent throughout. According to the flight instructor, the helicopter was in cruise flight at 75 mph and 800 feet mean sea level (msl) when he announced "simulated engine failure" and reduced the throttle and collective controls.

The student pilot responded to the simulated emergency, and adjusted the flight controls in order to establish an autorotation at 60 mph. He said that a cross-check of the instruments revealed that all were "normal" or "in the green."

The flight instructor stated that he initiated recovery of the maneuver at 100 feet above ground level (agl) by advancing the throttle and checking engine and rotor rpm indications. Because the engine rpm indication was "zero," the flight instructor announced an actual engine failure, joined the student pilot on the flight controls, and completed the autorotation to the ground.

At touchdown, the helicopter bounced on the "right front skid" and rolled over onto its right side.

The flight instructor held a commercial pilot certificate with ratings for airplane single-engine land, rotorcraft helicopter and instrument airplane and helicopter. He also held ratings for airplane single-engine land, rotorcraft helicopter and instrument airplane and helicopter. His most recent Federal Aviation Administration (FAA) second-class medical certificate was issued June 30, 2016.

The pilot reported 5,154 total hours of flight experience, of which 160 hours were in the accident helicopter make and model.

A review of the student pilot's records revealed he had accumulated 35 total hours of flight experience, all of which was in the accident helicopter.

According to FAA and maintenance records, the helicopter was manufactured in 1965 and was powered by a Lycoming HIO-360-A1A engine. Its most recent annual inspection was completed September 1, 2016, at 4,749 total aircraft hours.

At 1653, the weather reported at Hanchey Army Heliport (HEY), 5 nautical miles south of the accident site included few clouds at 6,000 feet agl with 10 statute miles visibility. The wind was from 330° at 5 knots. The temperature was 33° C, the dew point was 19° C, and the altimeter setting was 29.96 inches of mercury.

Photographs of the wreckage revealed the cockpit and fuselage were largely intact. The main rotor blades were damaged and the tailboom was severed. The helicopter was recovered to the operator's facility, and on October 4, 2016, an engine start was attempted on the airframe utilizing the helicopter's own battery and starter under the supervision of an FAA inspector.

The engine started immediately and ran smoothly without interruption until shut down by the cockpit controls.

## History of Flight

Enroute-cruise	Simulated/training event
Autorotation	Attempted remediation/recovery Loss of engine power (total) (Defining event)
Landing	Hard landing Roll over

## Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	51, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	06/30/2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5154 hours (Total, all aircraft), 160 hours (Total, this make and model)		

## Student Pilot Information

Certificate:	Student	Age:	23, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	04/15/2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	35 hours (Total, all aircraft), 35 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

Aircraft Make:	HUGHES	Registration:	N269BS
Model/Series:	269B	Aircraft Category:	Helicopter
Year of Manufacture:	1965	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	65-0205
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:	09/01/2016, Annual	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4749 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	HIO-360-A1A
Registered Owner:	SOUTHERN FLYING SERVICE OF AMERICA INC	Rated Power:	180 hp
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KHEY, 317 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	2153 UTC	Direction from Accident Site:	206°
Lowest Cloud Condition:	Few / 6000 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	33° C / 19° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	OZARK, AL (71J)	Type of Flight Plan Filed:	None
Destination:	OZARK, AL (71J)	Type of Clearance:	None
Departure Time:	1600 CDT	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	31.431944, -85.620556 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Brian C Rayner	<b>Report Date:</b>	03/18/2019
<b>Additional Participating Persons:</b>	Dale White; FAA/FSDO; Vestavia Hills, AL		
<b>Publish Date:</b>	03/18/2019		
<b>Note:</b>	The NTSB did not travel to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94074">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94074</a>		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).