



Aviation Investigation Final Report

Location:	LOVELAND, Colorado	Accident Number:	DEN00LA083
Date & Time:	May 3, 2000, 12:00 Local	Registration:	N1098B
Aircraft:	Hughes 269C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

During a practice power recovery autorotation, the private single engine land rated, helicopter student pilot performed a full autorotation when the engine lost all power. During the ensuing power off landing to an open soft field, the helicopter tipped forward, the main rotor struck and severed the tail boom, and the helicopter rolled on its right side. An examination of the engine provided no evidence of preimpact failure or malfunction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot misjudged the run on landing during a full autorotation. Factors were a total loss of power for unknown reasons and soft terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: DESCENT

Findings

1. (F) REASON FOR OCCURRENCE UNDETERMINED
 2. AUTOROTATION - PERFORMED - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. TERRAIN CONDITION - OPEN FIELD
4. (F) TERRAIN CONDITION - SOFT
5. RUN ON LANDING - ATTEMPTED - PILOT IN COMMAND
6. (C) RUN ON LANDING - MISJUDGED - PILOT IN COMMAND

Factual Information

On May 3, 2000, at 1200 mountain daylight time, a Hughes 269C helicopter, N1098B, sustained substantial damage during a hard landing near Loveland, Colorado. The student pilot was not injured. The flight was operating under Title 14 CFR Part 91 and no flight plan was filed. Visual meteorological conditions prevailed.

According to Federal Aviation Administration (FAA) records, the pilot holds a private pilot certificate with a single engine land rating. On this flight he was a student pilot practicing maneuvers in preparing for a helicopter rating.

The pilot reported that he was practicing autorotations and during initial entry to a practice power recovery autorotation, the engine lost all power and a full autorotation was performed. According to the pilot, he performed a run-on landing in a soft field and the helicopter tipped forward causing the main rotor blades to contact and sever the tail boom. The helicopter then rolled on its right side and spun 180 degrees.

Examination of the engine provided no evidence of preimpact failure or malfunction.

Pilot Information

Certificate:	Private	Age:	64, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 25, 1999
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	973 hours (Total, all aircraft), 67 hours (Total, this make and model), 740 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N1098B
Model/Series:	269C 269C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	400920
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	December 29, 1999 Annual	Certified Max Gross Wt.:	2050 lbs
Time Since Last Inspection:	39 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	12147 Hrs	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	H10-360-DIA
Registered Owner:	SCION AVIATION, LLC	Rated Power:	190 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	FNL ,5016 ft msl	Distance from Accident Site:	320 Nautical Miles
Observation Time:	09:55 Local	Direction from Accident Site:	3°
Lowest Cloud Condition:	Clear	Visibility	9 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	19°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LOVELAND , CO (FNL)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:30 Local	Type of Airspace:	Class E

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	40.360584,-105.179008(est)

Administrative Information

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	JIM JELLISON; DENVER , CO
Original Publish Date:	December 4, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49118

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