



National Transportation Safety Board Aviation Accident Final Report

Location:	Sherman, TX	Accident Number:	DFW05CA144
Date & Time:	06/01/2005, 0900 CST	Registration:	N62269
Aircraft:	Hughes 269A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 1 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

A pilot applicant was demonstrating a simulated power failure from a two-foot hover to an FAA inspector when he lost control of the helicopter. The helicopter drifted aft and to the left before it impacted the ground and rolled on its left side. The FAA inspector's attempts to recover the helicopter were unsuccessful. According to the FAA Rotorcraft Flying Handbook, common errors when executing a power failure in a hover are; failing to use sufficient proper antitorque pedal when power is reduced, failing to stop all sideward and backward movement prior to touchdown, failing to apply up-collective pitch properly, resulting in a hard touchdown, failing to touch down at a level attitude, and not rolling the throttle completely to idle. In addition, "A helicopter is susceptible to a lateral rolling tendency, called dynamic rollover, when lifting off of the surface. For dynamic rollover to occur, some factor has to first cause the helicopter to roll or pivot around a skid, or landing gear wheel, until its critical rollover angle is reached. Then, beyond this point, main rotor thrust continues the roll and recovery is impossible. If the critical angle is exceeded, the helicopter rolls on its side regardless of the cyclic corrections made."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The applicant's failure to maintain directional control of the helicopter during a simulated power failure from a hover and the FAA inspector's delayed remedial action resulted in a dynamic rollover.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: HOVER - IN GROUND EFFECT

Findings

1. ENGINE SHUTDOWN - SIMULATED

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: HOVER - OUT OF GROUND EFFECT

Findings

2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. (C) REMEDIAL ACTION - DELAYED - FAA INSPECTOR

Occurrence #3: ROLL OVER
Phase of Operation: OTHER

Findings

4. DYNAMIC ROLLOVER

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	56, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	Class 2	Last Medical Exam:	01/01/2005
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	8800 hours (Total, all aircraft), 300 hours (Total, this make and model)		

Pilot Information

Certificate:	Private	Age:	39, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	Class 3	Last Medical Exam:	02/01/2005
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	860 hours (Total, all aircraft), 33 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Hughes	Registration:	N62269
Model/Series:	269A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	160449
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	HO-360
Registered Owner:	Freedom Helicopters	Rated Power:	
Operator:	Freedom Helicopters	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	
Lowest Ceiling:		Visibility	
Wind Speed/Gusts, Direction:		Visibility (RVR):	
Altimeter Setting:		Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Sherman, TX (GYI)	Type of Flight Plan Filed:	None
Destination:	Sherman, TX	Type of Clearance:	None
Departure Time:	CST	Type of Airspace:	

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	1 Minor, 1 None		

Administrative Information

Investigator In Charge (IIC):	Leah D Yeager	Adopted Date:	09/13/2005
Additional Participating Persons:			
Publish Date:			
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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