



Aviation Investigation Final Report

Location:	O'Donnell, Texas	Accident Number:	CEN09CA180
Date & Time:	February 25, 2009, 14:00 Local	Registration:	N387AC
Aircraft:	ROBINSON HELICOPTER R22 BETA	Aircraft Damage:	Substantial
Defining Event:	Loss of lift	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot was conducting a predator control mission when he spotted wild hogs in an approximate 20-acre field of Salt Cedar trees. The pilot made a quick stop at an out-of-ground effect (OGE) hover in an attempt to move the hogs out in the open. The pilot stated that the low rotor RPM horn and light activated. He immediately stopped to regain rotor RPM. As the aircraft approached the edge of the trees towards an open field, the wind stopped and the rotor dropped to approximately 90 percent. The pilot observed an increase in airframe vibration followed by a hard left roll. The helicopter main rotor blades struck the ground in a 90-degree bank and came to rest on its left side. The pilot was not injured and the passenger sustained minor injuries. The pilot stated that the approximate gross weight at the time of the accident was 1,370 pounds. The helicopter performance charts indicated maximum weight for out of ground effect hover was 1,320 pounds for the weather conditions.

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 control while performing a quick stop maneuver to an out of ground effect (OGE) hover. Contributing to the accident was the high density altitude and near calm wind condition.

Findings

Personnel issues	Aircraft control - Pilot
Environmental issues	High density altitude - Effect on operation
Environmental issues	(general) - Effect on operation
Aircraft	(general) - Not attained/maintained
Aircraft	(general) - Capability exceeded
Aircraft	Main rotor blade system - Capability exceeded

Factual Information

History of Flight

Maneuvering-low-alt flying	Abrupt maneuver
Maneuvering-hover	Loss of lift (Defining event)
Emergency descent	Attempted remediation/recovery
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial	Age:	59, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	August 13, 2008
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 1, 2008
Flight Time:	16000 hours (Total, all aircraft), 4000 hours (Total, this make and model), 10 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER	Registration:	N387AC
Model/Series:	R22 BETA	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1631
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1370 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1756 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	0-320 SERIES
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KGNC,2995 ft msl	Distance from Accident Site:	37 Nautical Miles
Observation Time:	14:05 Local	Direction from Accident Site:	210°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lemesa, TX (2F5)	Type of Flight Plan Filed:	Unknown
Destination:	Lemesa, TX (2F5)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Airport Information

Airport:	Lamesa Municipal Airport 2F5	Runway Surface Type:	
Airport Elevation:	2999 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	32.920276,-101.07611(est)

Administrative Information

Investigator In Charge (IIC):	Gamble, William
Additional Participating Persons:	Arturo Castillo; Federal Aviation Administration, FSDO; Lubbock, TX
Original Publish Date:	May 12, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=73410

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