



Aviation Investigation Final Report

Location:	ODESSA, Florida	Accident Number:	MIA00LA097
Date & Time:	February 28, 2000, 10:30 Local	Registration:	N9518K
Aircraft:	Hughes TH-55	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot was conducting an autorotation with turn. He started his deceleration between 75 to 100 feet. The helicopter was not slowing down, he applied aft cyclic and the helicopter entered into a vertical rate of descent. Collective pitch was increased, the helicopter struck the ground in a tail low attitude separating the tail boom, and rolled over on it's right side.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper use of flight controls (cyclic and collective) during a autorotation resulting in a hard landing and subsequent roll over.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. TERRAIN CONDITION - GROUND
 2. AUTOROTATION - ATTEMPTED - PILOT IN COMMAND
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Occurrence #2: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (C) FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND

Occurrence #3: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On February 28, 2000, at about 1030 eastern standard time, a Hughes TH-55, N9518K, registered to Pasco County Mosquito Control, operating as a 14 CFR Part 91 training flight crashed during a training autorotation. Visual meteorological conditions prevailed and no flight plan was filed. The helicopter sustained substantial damage. The commercial pilot reported no injuries. The pilot departed from a private state heliport about 30 minutes before the accident.

The pilot stated he was conducting an autorotation with turn. He started his deceleration between 75 to 100 feet. The helicopter was not slowing down, he applied aft cyclic and the helicopter entered into a vertical rate of descent. Collective pitch was increased, the helicopter collided with the ground in a tail low attitude separating the tail boom, and rolled over on its right side.

Pilot Information

Certificate:	Commercial	Age:	43, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	January 6, 2000
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2592 hours (Total, all aircraft), 153 hours (Total, this make and model), 1938 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N9518K
Model/Series:	TH-55 TH-55	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	66-18272
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	August 23, 1999 100 hour	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:	42 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6669 Hrs	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	H10-360-B1A
Registered Owner:	PASCO COUNTY MOSQUITO CONTROL	Rated Power:	180 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:	TPA ,27 ft msl	Distance from Accident Site:	
Observation Time:	10:42 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Broken / 1900 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	23°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	01:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Simulated 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:	28.129682,-82.589279(est)

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	JAMES B MINARY; TAMPA , FL
Original Publish Date:	November 29, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=48684

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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](#).