



National Transportation Safety Board Aviation Accident Data Summary

Location:	LAKE WALES, FL	Accident Number:	ATL97LA067
Date & Time:	05/01/1997, 1700 EDT	Registration:	N37754
Aircraft:	Hughes 269A	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The certified flight instructor (CFI) was demonstrating a 180 degree turn autorotation with a power recovery. The CFI entered the maneuver approximately 600 feet above the ground. About 3/4 through the 180 degree turn, he noticed that the rotor speed was low. When the CFI decided to return the throttle to full power, there was no engine response. The CFI continued the approach, which resulted in a hard landing on the heel of the left skid, and the helicopter rolling over. Examination of the helicopter failed to disclose a mechanical problem or a system malfunction. During a functional check of the engine, it operated between idle and a moderated power range. Examination of the airframe disclosed that the skids were spread, and the landing gear damper assembly was fractured. According to FAA Advisory Circular, AC 61-13A, during the flare phase of an autorotation, the cyclic control should be moved forward to level the helicopter in preparation for landing. The advisory circular also stated that 'if a landing is to be made, allow the helicopter to descend vertically. Apply collective pitch smoothly to check the descent and cushion the landing.'

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for undetermined reason(s); and the flight instructor's improper flare and improper use of the flight controls, while flaring for an autorotative landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. AUTOROTATION - PERFORMED - PILOT IN COMMAND(CFI)

Occurrence #3: HARD LANDING
Phase of Operation: EMERGENCY LANDING

Findings

- 3. (C) FLARE - IMPROPER - PILOT IN COMMAND(CFI)
- 4. (C) ROTORCRAFT FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND(CFI)

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	40
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Airplane Single-engine; Helicopter
Flight Time:	10000 hours (Total, all aircraft), 2000 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N37754
Model/Series:	269A 269A	Engines:	1 Reciprocating
Operator:	SUN-AIR HELICOPTERS	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:	None	Engine Model/Series:	HIO-360-A1A
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LAL, 142 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Unknown / 0 ft agl	Wind Speed/Gusts, Direction:	11 knots / , 310°
Temperature:	29° C	Visibility	20 Miles
Precipitation and Obscuration:			
Departure Point:	(X07)	Destination:	

Airport Information

Airport:	LAKE WALES MUNICIPAL (X07)	Runway Surface Type:	Asphalt
Runway Used:	6	Runway Surface Condition:	Dry
Runway Length/Width:	3999 ft / 100 ft		

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): PHILLIP POWELL

Adopted Date: 05/21/1998

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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