



National Transportation Safety Board Aviation Accident Data Summary

Location:	Louisville, KY	Accident Number:	NYC06TA190
Date & Time:	08/02/2006, 1320 EDT	Registration:	N520AP
Aircraft:	MD Helicopter Inc. 500N	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The flight instructor was providing initial helicopter training to the student, a commercial pilot with fixed wing ratings. The student, with the flight instructor "following closely" on the controls, was practicing approaches to a hover in an open field. After several approaches, they decided to practice a steep approach. About 600 feet above the ground the student began a stabilized approach at 40 knots indicated airspeed, and at a descent rate about 1,000 feet per minute. He then brought the helicopter to a hover about 5 to 10 feet above the ground. The helicopter hovered for between 5 and 15 seconds, before it "drop[ed] to the ground," and rolled onto its right side. The flight instructor further reported that prior to the accident, the helicopter was operating with "no indication of [a] mechanical problem," and the engine seemed to be producing power normally. A witness stated that as the helicopter got close to the ground, "it all of the sudden pitched nose down," and impacted the ground. Examination of the wreckage revealed that both right landing gear struts fractured in ductile overload, consistent with a single impact. Flight control continuity was established, with no anomalies noted.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain control of the helicopter and the flight instructor's inadequate supervision, which resulted in a hard landing and subsequent rollover.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: LANDING

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - DUAL STUDENT
2. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

Occurrence #2: HARD LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings

3. TERRAIN CONDITION - GROUND

Occurrence #3: ROLL OVER
Phase of Operation: DESCENT - UNCONTROLLED

Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	52
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Helicopter
Flight Time:	2028 hours (Total, all aircraft), 740 hours (Total, this make and model), 1781 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial	Age:	38
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	345 hours (Total, all aircraft), 5 hours (Total, this make and model), 203 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MD Helicopter Inc.	Registration:	N520AP
Model/Series:	500N	Engines:	1 Turbo Shaft
Operator:	Louisville Metro Police Department	Engine Manufacturer:	Allison
Operating Certificate(s) Held:	None	Engine Model/Series:	250-C20R/2
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:	LOU, 546 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	9 knots / , 280°
Temperature:	33° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Louisville, KY (NONE)	Destination:	(NONE)

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:	None
Latitude, Longitude:	38.139722, -85.539167		

Administrative Information

Investigator In Charge (IIC): David S Muzio

Adopted Date: 06/27/2007

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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