



National Transportation Safety Board Aviation Accident Data Summary

Location:	Ardmore, OK	Accident Number:	FTW02LA044
Date & Time:	12/01/2001, 1030 CST	Registration:	N5226
Aircraft:	Bell 47G	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The student pilot had completed three power recovery autorotations to the south, and the flight instructor was to demonstrate a "full touchdown autorotation" to end the training session. The flight instructor initiated the autorotation at 1,500 feet msl and 60 knots to the airport's mid-field median. After slowing to 40 knots, the instructor began a flare to reduce the airspeed to 15-20 knots. At 10 feet agl, he pulled collective to cushion the landing. The helicopter touched down on the soft grassy area and slid for approximately 10 feet before starting to nose over. "The tail of the helicopter pitched upward into the blades, severing it." The helicopter rotated left approximately 270 degrees before coming to rest upright. The flight instructor stated that "weather had saturated the ground and caused the sod to be soft on the usual landing area. It was not visible from the helicopter."

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the flight instructor's selection of an unsuitable area for practicing a full touchdown autorotation, which resulted in a nose over. A contributing factor was the soft ground.

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

1. EMERGENCY PROCEDURE - SIMULATED - PILOT IN COMMAND(CFI)
2. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND(CFI)
3. (F) TERRAIN CONDITION - SOFT

Occurrence #2: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

4. MISC ROTORCRAFT,MAIN ROTOR/TAIL BOOM CONTACT

Flight Instructor Information

Certificate:	Flight Instructor; Commercial; Private	Age:	33
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Helicopter
Flight Time:	450 hours (Total, all aircraft)		

Student Pilot Information

Certificate:	Commercial	Age:	24
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N5226
Model/Series:	47G	Engines:	1 Reciprocating
Operator:	Versatile Helicopters, Inc.	Engine Manufacturer:	Franklin
Operating Certificate(s) Held:	None	Engine Model/Series:	6A-355-B1
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:	1F0, 844 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	Calm / ,
Temperature:	11 °C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	Ardmore, OK (1F0)	Destination:	

Airport Information

Airport:	Ardmore Downtown Executive (1F0)	Runway Surface Type:	Grass/turf
Runway Used:		Runway Surface Condition:	Soft
Runway Length/Width:			

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:	34.146111, -97.122500		

Administrative Information

Investigator In Charge (IIC): Douglas D Wigington

Adopted Date: 01/16/2003

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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