



National Transportation Safety Board Aviation Accident Final Report

Location:	LOS ANGELES, CA	Accident Number:	LAX00TA186
Date & Time:	05/08/2000, 0925 PDT	Registration:	N955SD
Aircraft:	McDonnell Douglas 500N	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Public Aircraft

Analysis

The flight instructor reported the purpose of the flight was to practice emergency procedures as part of routine intradepartmental training. The training was being conducted in an open field on property owned by the Sheriff's Department. The flight instructor stated that they often utilized the field for flight training purposes, and reported that he had done some training there about 1-week prior. He reported that they performed a high reconnaissance of the field prior to landing and he noted nothing unsuitable about the terrain. A ground survey was not performed prior to the conduct of training flights and landings in the field. The flight instructor stated that he reduced the throttle to ground idle about 10 to 12 feet agl to simulate a total power loss. The pilot trainee was on the controls; he landed the helicopter with no problems. The flight instructor stated that the helicopter slid forward only a few feet, then stopped abruptly. The skids had become entangled in some 18-inch-tall grass and imbedded vines, causing unexpected friction. He stated that the natural tendency to input aft cyclic to stop the aircraft from going over caused the main rotor blades to contact the tail boom.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The combined failure of the operator management and the check pilot to ensure the landing area was suitable for the slide on landing. Factors were the high vegetation that entangled the skids, resulting in the abrupt stop and nose down movement of the helicopter, and the training pilot's inappropriate response to the nose pitch down.

Findings

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

Findings

1. TERRAIN CONDITION - GRASS
2. (F) TERRAIN CONDITION - HIGH VEGETATION
3. RUN ON LANDING - ATTEMPTED - DUAL STUDENT
4. (C) PROPER ASSISTANCE - NOT OBTAINED - COMPANY/OPERATOR MANAGEMENT
5. (C) PROCEDURE INADEQUATE - COMPANY/OPERATOR MANAGEMENT
6. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - NOT VERIFIED - CHECK PILOT
7. MISC ROTORCRAFT,MAIN ROTOR/TAIL BOOM CONTACT - CUT/SEVERED
8. (F) REMEDIAL ACTION - IMPROPER - DUAL STUDENT

Factual Information

On May 8, 2000, at 0925 hours Pacific daylight time, a McDonnell Douglas 500N helicopter, N955SD, sustained substantial damage while performing off-airport landing training in Los Angeles, California. The helicopter was being operated by the Los Angeles County Sheriff's Department as a public-use aircraft under the provisions of 14 CFR Part 91. The commercial rated flight instructor and commercial rated pilot trainee were not injured. The local area instructional flight originated at the Long Beach, California, airport, about 0830. Visual meteorological conditions prevailed and no flight plan was filed.

The flight instructor reported that the purpose of the flight was to practice emergency procedures as part of routine intradepartmental training. They were conducting the training in an open field on property owned by the Sheriff's Department. The flight instructor stated that they often utilized the field for flight training purposes, and reported that he had done some training there about 1 week prior to the accident. He reported that they performed a high reconnaissance of the field prior to landing; at that time he noted nothing unsuitable about the terrain.

The flight instructor stated about 10 to 12 feet above ground level (agl), he reduced the throttle to ground idle to simulate a total power loss. The pilot trainee was on the controls; he landed the helicopter with no problems. The flight instructor stated that the helicopter slid forward only a few feet, then stopped abruptly. The skids had become entangled in 18-inch-tall grass and imbedded vines, causing unexpected friction. He stated that the natural tendency to input aft cyclic to stop the aircraft from going over caused the main rotor blades to contact the tail boom.

The flight instructor reported that neither he nor the pilot trainee had seen the high vegetation before landing, nor had they ever noted it there in the field before.

Pilot Information

Certificate:	Commercial	Age:	55, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	09/24/1999
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	13494 hours (Total, all aircraft), 865 hours (Total, this make and model), 13422 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	McDonnell Douglas	Registration:	N955SD
Model/Series:	500N 500N	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	LN080
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	06/21/1999, AAIP	Certified Max Gross Wt.:	3350 lbs
Time Since Last Inspection:	64 Hours	Engines:	1 Turbo Shaft
Airframe Total Time:	2802 Hours	Engine Manufacturer:	Allison
ELT:	Installed, not activated	Engine Model/Series:	250-C20
Registered Owner:	LOS ANGELES COUNTY SHERIFF DPT	Rated Power:	450 hp
Operator:	LOS ANGELES COUNTY SHERIFF DPT	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EMT, 296 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1647 PDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 17000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	20°C / 15°C
Precipitation and Obscuration:			
Departure Point:	LONG BEACH, CA (LGB)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0830 PDT	Type of Airspace:	Class G

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
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): GEORGE PETERSON Report Date: 07/17/2001

Additional Participating Persons: STEVE FORD; LOS ANGELES, CA

Publish Date:

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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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).