



National Transportation Safety Board Aviation Accident Data Summary

Location:	RIVERSIDE, CA	Accident Number:	LAX92LA034
Date & Time:	11/01/1991, 1643 PST	Registration:	N549SM
Aircraft:	ROBINSON R-22B	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

THE SOLO STUDENT WAS PRACTICING TAKEOFFS AND LANDINGS. WHILE DOWNWIND THE STUDENT SAID THE ENGINE RPM INDICATOR SUDDENLY PEGGED AT THE TOP OF THE GAUGE AND THE ROTOR RPM BEGAN RAPIDLY DECREASING. THE STUDENT INITIATED AN AUTO ROTATION. THE HELICOPTER LANDED HARD AND ROLLED OVER. EXAMINATION OF THE HELICOPTER BY FAA INSPECTORS REVEALED THAT THE FORWARD DRIVE BELT WAS SPLIT LONGITUDINALLY AND DISPLACED FROM THE TRANSMISSION PULLEY. THE AFT DRIVE BELT WAS FOUND OFF THE ENGINE AND TRANSMISSION PULLEYS. NO OTHER SYSTEM ABNORMALITIES WERE NOTED.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
THE FAILURE OF THE ENGINE TO TRANSMISSION DRIVE BELT AND THE PILOTS FAILURE TO CORRECTLY JUDGE OF THE LANDING FLARE DURING THE SUBSEQUENT AUTOROTATION.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

1. (C) ROTOR DRIVE SYSTEM,MAIN ROTOR DRIVE BELT - FAILURE,TOTAL

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

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. (C) FLARE - MISJUDGED - PILOT IN COMMAND
3. LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Pilot Information

Certificate:	Student	Age:	25
Airplane Rating(s):	None	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	150 hours (Total, all aircraft), 63 hours (Total, this make and model), 19 hours (Pilot In Command, all aircraft), 83 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON	Registration:	N549SM
Model/Series:	R-22B R-22B	Engines:	1 Reciprocating
Operator:	PARFLITE, INC.	Engine Manufacturer:	LYCOMING
Operating Certificate(s) Held:	None	Engine Model/Series:	O-320-B2C
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:	, 0 ft msl	Weather Information Source:	Pilot
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	8 knots / , 280°
Temperature:		Visibility	4 Miles
Precipitation and Obscuration:			
Departure Point:		Destination:	

Wreckage and Impact Information

Crew Injuries:	1 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):	Jeff Rich	Adopted Date:	04/27/1993
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 pubin@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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