



National Transportation Safety Board Aviation Accident Data Summary

Location:	DELHI, CA	Accident Number:	LAX99LA293
Date & Time:	09/01/1999, 0615 PDT	Registration:	N59551
Aircraft:	Bell 206B	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot reported that the engine rpm began decreasing during the takeoff climb, about 200 to 300 feet agl, while he was over a grove of trees. He extended his autorotative glide to make it past the trees, which resulted in a further decrease of main rotor rpm. The helicopter landed hard, about 20 to 30 miles per hour of forward velocity, and rolled over. Postcrash examination by a FAA inspector revealed no evidence of mechanical malfunction; however, the fluid found in the airframe fuel filter and mechanical fuel pump screen was noted to be about 90 percent water. About 30 percent of the fluid found in the Ceco fuel system screen was also water. The FAA inspector reported that the fuel cap was loose in the opening and did not appear to seal properly; the shaft seal was worn in the cap and the cap locking mechanism was not adjusted properly. When the fuel cap was removed, the inspector noted that the bottom of the fuel filler opening was deformed from the fuel nozzles being inserted in the opening. The pilot reported that he had washed the helicopter the night before the accident. He further reported that during the preflight he had drained fuel from the airframe fuel filter and fuel sump and hadn't noted any water or contaminants.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to the pilot's inadequate preflight, which failed to detect water contamination of the fuel system. The operator's inadequate maintenance of the loose fitting fuel cap and the deformed filler opening, which allowed water to leak into the fuel tank, were also causal. A factor in the accident was the trees along the autorotative flight path, which required the pilot to stretch the glide and resulted in a low main rotor rpm situation for the landing flare.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) FUEL SYSTEM,CAP - LEAK
2. (C) MAINTENANCE,REPLACEMENT - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
3. (C) FLUID,FUEL - CONTAMINATION,WATER
4. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) OBJECT - TREE(S)

6. (F) PROPER GLIDEPATH - NOT POSSIBLE - PILOT IN COMMAND

7. (F) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #4: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Pilot Information

Certificate:	Commercial	Age:	36
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Instrument Rating(s):	None
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	10000 hours (Total, all aircraft), 1000 hours (Total, this make and model), 9888 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N59551
Model/Series:	206B 206B	Engines:	1 Turbo Shaft
Operator:	BETTENCOURT FLYING SERVICE INC	Engine Manufacturer:	Allison
Operating Certificate(s) Held:		Engine Model/Series:	250-C20
Flight Conducted Under:	Part 137: Agricultural		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	MCE, 156 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Unknown / 0 ft agl	Wind Speed/Gusts, Direction:	3 knots / , 320°
Temperature:	11° C	Visibility	10 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): NOELANI MARS Adopted Date: 05/09/2001

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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