National Transportation Safety Board
Aviation Accident Data Summary

Location:	PALO ALTO, CA	**Accident Number:**	LAX00LA086
Date & Time:	02/02/2000, 1437 PST	**Registration:**	N999EV
Aircraft:	Robinson R44	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot and passenger were inbound to land and the pilot requested permission to perform an autorotation, which was approved. The pilot reported that he did not think he was going to reach the runway during the autorotation so he added power. The engine failed to respond and the tail stinger contacted the ground resulting in the separation of the tail boom. The pilot pulled collective pitch; the helicopter briefly became airborne, and spun violently to the right. The pilot maintained a level attitude and the helicopter landed hard. After the rotor stopped, they exited the helicopter. The pilot stated that he should have used carburetor heat prior to the extended engine idle period of the autorotation. The temperature and dew point were in the serious icing-glide power range.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The pilot's failure to use carburetor heat, resulting in a loss of engine power, and, his misjudged autorotation approach that resulted in a collision with the ground during the landing flare. Contributing to the accident was the conditions conducive to carburetor icing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: APPROACH

Findings
1. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. AUTOROTATION - ATTEMPTED - PILOT IN COMMAND
3. (C) CHECKLIST - NOT USED - PILOT IN COMMAND
4. (C) CARBURETOR HEAT - NOT USED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - EMERGENCY

Findings
5. AUTOROTATION - NOT SUCCESSFUL - PILOT IN COMMAND
6. (C) PLANNED APPROACH - MISJUDGED - PILOT IN COMMAND

Pilot Information

Certificate:	Commercial; Private	**Age:**	49
Airplane Rating(s):	Single-engine Land	**Instrument Rating(s):**	None
Other Aircraft Rating(s):	Helicopter	**Instructor Rating(s):**	None
Flight Time:	2000 hours (Total, all aircraft), 95 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Robinson	**Registration:**	N999EV
Model/Series:	R44 R44	**Engines:**	1 Reciprocating
Operator:	GARY LAMPERT	**Engine Manufacturer:**	Lycoming
Operating Certificate(s) Held:	None	**Engine Model/Series:**	0540-F105
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	PAO, 5 ft msl	**Weather Information Source:**	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	**Wind Speed/Gusts, Direction:**	8 knots / , 60°
Temperature:	18°C	**Visibility**	7 Miles
Precipitation and Obscuration:			
Departure Point:	SAN CARLOS, CA (SQL)	**Destination:**	PALO ALTO, CA (PAO)

Airport Information

Airport:	PALO ALTO (PAO)	**Runway Surface Type:**	Asphalt
Runway Used:	30	**Runway Surface Condition:**	Dry
Runway Length/Width:	2500 ft / 65 ft		

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	GEORGE E PETTERSON	**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.ntsb.gov/pubdms/.		