Aviation Investigation Final Report

Location:	Pollock Pines, California	**Accident Number:**	LAX03LA019
Date & Time:	November 2, 2002, 09:10 Local	**Registration:**	N2616B
Aircraft:	Bell 47G-2	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Minor, 2 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

During initial climb from a 3,500-foot mean sea level plateau, the helicopter's skid collided with a 3-foot-high bush. The helicopter yawed and impacted the ground. The pilot reported that the collision occurred after he had increased the helicopter's collective pitch and accelerated to about 20 knots, thereby starting to acquire effective translational lift.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain adequate obstruction clearance during initial climb, which resulted in a collision with vegetation.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF

Findings
1. TERRAIN CONDITION - HIGH VEGETATION
2. (C) ALTITUDE/CLEARANCE - INADEQUATE - PILOT IN COMMAND

Occurrence #2: ROLL OVER
Phase of Operation: TAKEOFF

Factual Information

On November 2, 2002, about 0910 Pacific standard time, a Bell 47G-2, N2616B, collided with a bush and terrain during an attempted takeoff from a plateau near Pollock Pines, California. The helicopter was substantially damaged. The commercial pilot and one passenger were not injured. The second passenger received a minor injury. Visual meteorological conditions prevailed, and no flight plan was filed. The helicopter was operated for hire on a photography flight under the provisions of 14 CFR Part 91, by D. C. Rotor & Wing, Rancho Murieta, California. The flight originated from Rancho Murieta about 0810.

The pilot reported to the National Transportation Safety Board investigator that he flew to the plateau and landed. The two passengers exited the helicopter to take pictures. The helicopter's engine was kept running. Thereafter, the passengers reboarded the helicopter to continue their flight. The pilot stated that because of the ambient conditions, including the 3,500-foot mean sea level elevation and estimated 40-degree Fahrenheit temperature, the helicopter did not have adequate power to make a normal departure from a hover. However, the pilot indicated that he believed there was sufficient clear area over the rocky terrain to perform a running takeoff.

According to the pilot, during the accident sequence he increased the helicopter's collective pitch and accelerated to about 20 knots thereby starting to acquire effective translational lift. During this initial climb a skid collided with a 3-foot-tall bush. The helicopter suddenly yawed and impacted the ground.

In the pilot's completed "Aircraft Accident Report" he stated that "...the purpose of the flight was to encourage [one of the passengers] to resume her flight training with D.C. Rotor."

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	July 22, 2002
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	February 23, 2002
Flight Time:	313 hours (Total, all aircraft), 90 hours (Total, this make and model), 217 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	**Registration:**	N2616B
Model/Series:	47G-2	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	2475
Landing Gear Type:	Skid	**Seats:**	3
Date/Type of Last Inspection:	September 17, 2002 100 hour	**Certified Max Gross Wt.:**	2450 lbs
Time Since Last Inspection:	30 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	7232 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Not installed	**Engine Model/Series:**	VO-435-A1F
Registered Owner:	Gregory J. Desy	**Rated Power:**	260 Horsepower
Operator:	D. C. Rotor & Wing	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	AUN,1531 ft msl	**Distance from Accident Site:**	28 Nautical Miles
Observation Time:	08:50 Local	**Direction from Accident Site:**	280°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	110°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.1 inches Hg	**Temperature/Dew Point:**	13°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pollock Pines, CA	**Type of Flight Plan Filed:**	None
Destination:	Rancho Murieta, CA (RIU)	**Type of Clearance:**	None
Departure Time:	09:10 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor, 1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor, 2 None	**Latitude, Longitude:**	38.722778,-120.601669

Administrative Information

Investigator In Charge (IIC):	Pollack, Wayne
Additional Participating Persons:	Greg Michael; Federal Aviation Administration; Sacramento, CA
Original Publish Date:	October 28, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=56014