



# Aviation Investigation Final Report

<b>Location:</b>	Livermore, California	<b>Accident Number:</b>	LAX04TA218
<b>Date &amp; Time:</b>	May 20, 2004, 18:00 Local	<b>Registration:</b>	N216HP
<b>Aircraft:</b>	Eurocopter France AS350 B3	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Public aircraft		

## Analysis

The helicopter drifted aft while the pilot was hover taxiing into position for landing and the tail rotor struck a chain link fence, damaging the tail rotor and tail boom. Following the tail rotor strike, the pilot hovered the helicopter forward and landed.

## 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 clearance from obstructions while landing.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: HOVER - IN GROUND EFFECT

### Findings

1. OBJECT - FENCE
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

## Factual Information

On May 20, 2004, at 1800 Pacific daylight time, an Eurocopter AS350 B3, N216HP, collided with a chain link fence while hover landing at Livermore Municipal Airport, Livermore, California. The California Highway Patrol was operating the helicopter under the provisions of 14 CFR Part 91. The commercial pilot and single crewmember were not injured, and the helicopter was substantially damaged. Visual meteorological conditions prevailed, and a flight plan had not been filed. The public-use flight originated at Sacramento Executive Airport, Sacramento, California, at 1725.

The pilot told the National Transportation Safety Board investigator that he was hover taxiing into position for landing at the Livermore north ramp, G area. While executing the landing maneuver the helicopter drifted aft and the tail rotor struck a chain link fence, damaging the tail rotor and tail boom. The pilot hovered the helicopter forward and landed.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	September 24, 2003
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	December 12, 2003
<b>Flight Time:</b>	3483 hours (Total, all aircraft), 1189 hours (Total, this make and model), 3483 hours (Pilot In Command, all aircraft), 99 hours (Last 90 days, all aircraft), 47 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Eurocopter France	<b>Registration:</b>	N216HP
<b>Model/Series:</b>	AS350 B3	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	3330
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	May 16, 2004 AAIP	<b>Certified Max Gross Wt.:</b>	4961 lbs
<b>Time Since Last Inspection:</b>	34.8 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	5234.8 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Turbomeca
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	Aerial 2B
<b>Registered Owner:</b>	California Highway Patrol	<b>Rated Power:</b>	632 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLVK,400 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	18:28 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	16 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.02 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 8°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sacramento Exc, CA (KSAC)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Livermore, CA (KLVK)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	17:25 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Livermore Municipal KLVK	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	37.693332,-121.820274

## Administrative Information

<b>Investigator In Charge (IIC):</b>	McKenny, Van
<b>Additional Participating Persons:</b>	Ray Murphy; Federal Aviation Administration; Oakland, CA
<b>Original Publish Date:</b>	July 7, 2005
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=59266">https://data.ntsb.gov/Docket?ProjectID=59266</a>

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