



# National Transportation Safety Board

## Aviation Accident Data Summary

<b>Location:</b>	Stockton, CA	<b>Accident Number:</b>	WPR11LA244
<b>Date &amp; Time:</b>	06/01/2011, 1620 PDT	<b>Registration:</b>	N68012
<b>Aircraft:</b>	HILLER UH-12E	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

### Analysis

The pilot initially reported that he was conducting low level agricultural drying of cherry trees when the tail rotor contacted a tree during a turn. He felt a shake or vibration through the controls and looked for a place to land. He was maneuvering the helicopter towards a road when the helicopter experienced a full left yaw. The pilot applied full right pedal to counter the yawing motion and entered autorotation through the trees to the ground. Subsequently the pilot revised his statement saying that the skids of his helicopter were at least 10-15 feet above the tallest tree when he felt a shake or vibration through the controls. Postaccident examination of the airplane by a mechanic and a FAA inspector found continuity between the tail rotor and the linkages through the drive train which lead to the main transmission. Control system continuity was also established. The tail boom near the tail rotor transmission was twisted clockwise, shearing the aluminum, which is consistent with a tail rotor imbalance condition. Tail rotor blade #1 was sheared off about one quarter of the distance between the blade root and the blade tip, and rotor blade #2 had compression deformation of the trailing edge near the blade root. The sheared off portion of tail rotor blade #1 was located in the orchard. Visual inspection found a circular impact deformation in the leading edge at the blade tip, separation of the blade tip weight from the blade, deformation of the blades surface area, and compression bending of the blade's trailing edge. The damage to blade #1 was consistent with an impact to a tree limb.

### Flight Events

Maneuvering-low-alt flying - Collision with terr/obj (non-CFIT)  
Maneuvering-low-alt flying - Loss of control in flight  
Maneuvering-low-alt flying - Off-field or emergency landing  
Landing-flare/touchdown - Collision with terr/obj (non-CFIT)

### Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:  
The pilot's failure to maintain clearance from obstacles.

### Findings

Personnel issues-Psychological-Attention/monitoring-Attention-Pilot - C  
Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C  
Personnel issues-Psychological-Attention/monitoring-Monitoring environment-Pilot - C  
Environmental issues-Physical environment-Object/animal/substance-Tree(s)-  
Response/compensation - C

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	31
<b>Airplane Rating(s):</b>	None	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	2382 hours (Total, all aircraft), 1375 hours (Total, this make and model), 2294 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	HILLER	<b>Registration:</b>	N68012
<b>Model/Series:</b>	UH-12E	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	Alpine Helicopter Service, Inc.	<b>Engine Manufacturer:</b>	Lycoming
<b>Air Carrier Operating Certificate:</b>		<b>Engine Model/Series:</b>	V0-540
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>		<b>Weather Information Source:</b>	Pilot
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	Broken / 9000 ft agl
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	4 knots, Variable
<b>Temperature:</b>	18°C / 10°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Lodi, CA (L53)	<b>Destination:</b>	Lodi, CA (L53)

## Airport Information

<b>Airport:</b>	Lodi Airport (L53)	<b>Runway Surface Type:</b>	
<b>Runway Used:</b>	N/A	<b>Runway Surface Condition:</b>	
<b>Runway Length/Width:</b>			

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Jefferey R Rich	<b>Adopted Date:</b>	08/30/2011
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=79286">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=79286</a>		

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