



Aviation Investigation Final Report

Location:	BRENTWOOD, California	Accident Number:	LAX87DVD04
Date & Time:	August 5, 1987, 06:30 Local	Registration:	N61PC
Aircraft:	HILLER UH-23-D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

DURING AN AERIAL APPLICATION FLIGHT, THE TAIL BOOM WEIGHT SEPARATED AND CONTACTED THE TAIL ROTOR. THE PILOT LOST CONTROL OF THE AIRCRAFT AND COLLIDED WITH A TREE AND SUBSEQUENTLY THE TERRAIN. POST ACC INVEST REVEALED THAT THE 'PIP PINS' WHICH SECURE THE TAIL BOOM WEIGHT BROKE IN FLT ALLOWING MOVEMENT OF THE WEIGHT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) MISC ROTORCRAFT, TAIL BOOM - FAILURE, PARTIAL
2. (C) FUSELAGE, ATTACHMENT - SEPARATION

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING - AERIAL APPLICATION

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

Findings

3. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	36, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 1, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5000 hours (Total, all aircraft), 4900 hours (Total, this make and model), 90 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N61PC
Model/Series:	UH-23-D UH-23-D	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	1309
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	February 12, 1987 Annual	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:	75 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2502 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-540
Registered Owner:	DOFF W. COOKSEY	Rated Power:	305 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	06:15 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.869338,-121.680091(est)

Administrative Information

Investigator In Charge (IIC): Carr, Ralph

Additional Participating Persons:

Original Publish Date: February 24, 1989

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=25336>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).