



Aviation Investigation Final Report

Location:	HURON, California	Accident Number:	LAX91LA249
Date & Time:	June 6, 1991, 20:45 Local	Registration:	N507HA
Aircraft:	HILLER UH-12E	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT COMPLETED AN AERIAL APPLICATION FLIGHT AND WAS RETURNING TO THE LOADING AREA WHEN THE HELICOPTER SUSTAINED A TOTAL LOSS OF POWER. DURING THE SUBSEQUENT AUTOROTATION THE PILOT ATTEMPTED TO SIDESLIP THE HELICOPTER BETWEEN THE ALMOND TREES BUT WAS UNABLE TO DO SO. THE ENGINE AND SUBSEQUENT METALLURGICAL EXAMINATION DISCLOSED THE NO. 3 CYLINDER CONNECTING ROD BOLT FAILED DUE TO FATIGUE. COMPANY MAINTENANCE PERSONNEL REPORTED THAT THE FATIGUE WAS CAUSED BY CONSISTENT ENGINE OVERSPEED POWER SETTINGS BY THE PILOTS FLYING THE HELICOPTER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THAT UNKNOWN PILOT(S) IMPOPERLY USED THE THROTTLE CONTROL WHICH CAUSED AN OVERSPEED CONDITION. CONTRIBUTING TO THIS ACCIDENT WAS THE CONNECTING ROD BOLT FATIGUE FAILURE.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE

- Findings
1. SINGLE ENGINE AIRCRAFT

2. (F) ENGINE ASSEMBLY,CONNECTING ROD BOLT - FAILURE,TOTAL
 3. (F) ENGINE ASSEMBLY,CONNECTING ROD BOLT - FATIGUE
 4. (C) POWERPLANT - OVERSPEED
 5. (C) THROTTLE/POWER CONTROL - IMPROPER USE OF - UNKNOWN
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Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

6. AUTOROTATION - PERFORMED - PILOT IN COMMAND
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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

7. OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	43, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	April 9, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	15000 hours (Total, all aircraft), 15000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N507HA
Model/Series:	UH-12E UH-12E	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	5007
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	February 25, 1991 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:	114 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3112 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-540-C2A
Registered Owner:	SAN JOAQUIN HELICOPTERS	Rated Power:	305 Horsepower
Operator:	SAN JOAQUIN HELICOPTERS	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:	Night/bright
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	20:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

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:	36.200508,-120.090522(est)

Administrative Information

Investigator In Charge (IIC):	Llorente, A.
Additional Participating Persons:	PAI JOSEPH G. ROMANO; FRESNO , CA PAI GREGORY MINARIK; FRESNO , CA
Original Publish Date:	May 27, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=27237

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