



National Transportation Safety Board Aviation Accident Data Summary

Location:	LEANDER, LA	Accident Number:	FTW94LA253
Date & Time:	08/01/1994, 1345 CDT	Registration:	N9062G
Aircraft:	Hughes 269A	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE HELICOPTER EXPERIENCED A COMPLETE LOSS OF ENGINE POWER DURING AN IGNITION FIRE CONTROL FLIGHT AT 100 FEET AGL. THE PILOT ENTERED AUTOROTATION TO THE ONLY AVAILABLE FORCED LANDING AREA. THE AIRCRAFT TOUCHED DOWN HARD AND SUSTAINED STRUCTURAL DAMAGE. POSTACCIDENT EXAMINATION OF THE ENGINE REALED THAT BOTH CONNECTING ROD BOLTS IN THE #1 CYLINDER WERE FRACTURED. A SAFETY BOARD METALLURGICAL EXAMINATION REVEALED THAT ONE OF THE CONNECTING ROD BOLTS HAD FAILED DUE TO A PREEXISTING FATIGUE CRACK THAT EMANATED FROM THE HEAD-TO-SHOULDER FILLET RADIUS OF THE BOLT. THE ENGINE WAS LAST OVERHAULED IN 1970. THE ENGINE MANUFACTURER ADVISES IN THEIR SERVICE INSTRUCTION LETTER DATED 7/1/92 THAT 'ALL ENGINES THAT DO NOT ACCUMULATE THE RECOMMENDED TIME OPERATING HOURS BETWEEN OVERHAULS IN A TWELVE YEAR PERIOD, MUST BE OVERHAULED DURING THE TWELFTH YEAR.' TEXTRON LYCOMING MANDATORY SERVICE BULLETIN NO. 240M REQUIRES REPLACEMENT OF THE CONNECTING ROD BOLTS AND NUTS EACH TIME THE ENGINE IS SUBJECT TO OVERHAUL.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE MAINTENANCE AND A FATIGUE FAILURE OF A #1 CYLINDER CONNECTING ROD BOLT. A FACTOR WAS THE LACK OF SUITABLE TERRAIN AVAILABLE TO THE PILOT FOR A FORCED LANDING.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD BOLT - FATIGUE
2. (C) MAINTENANCE,OVERHAUL - NOT PERFORMED - OTHER MAINTENANCE PERSONNEL
3. (C) ENGINE ASSEMBLY,OTHER - FAILURE,TOTAL

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING

Findings

4. AUTOROTATION - PERFORMED - PILOT IN COMMAND
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Occurrence #3: HARD LANDING
Phase of Operation: EMERGENCY LANDING

Findings

- 5. (F) TERRAIN CONDITION - NONE SUITABLE
- 6. TERRAIN CONDITION - HIGH VEGETATION

Pilot Information

Certificate:	Commercial	Age:	
Airplane Rating(s):	None	Instrument Rating(s):	None
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	2500 hours (Total, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N9062G
Model/Series:	269A 269A	Engines:	1 Reciprocating
Operator:	WARD, JAMES D.	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:		Engine Model/Series:	HIO-360-B1A
Flight Conducted Under:	Part 137: Agricultural		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Unknown
Lowest Ceiling:	Broken / 15000 ft agl	Wind Speed/Gusts, Direction:	5 knots / , 90°
Temperature:	28° C	Visibility	7 Miles
Precipitation and Obscuration:			
Departure Point:	Destination:		

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): HECTOR R CASANOVA Adopted Date: 03/06/1997

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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