



National Transportation Safety Board Aviation Accident Final Report

Location:	AURORA, IL	Accident Number:	CHI92LA222
Date & Time:	08/01/1992, 1058 CDT	Registration:	N58335
Aircraft:	HUGHES 269C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE PILOT FELT A YAW, LOSS OF POWER AND DECREASE IN ROTOR RPM DURING CRUISE. HE TURNED TOWARD HOMEFIELD AND BEGAN A DESCENT. ENROUTE, THE ENGINE LOST POWER COMPLETELY, AND HE LANDED HARD IN AN OPEN FIELD. ENGINE EXAMINATION REVEALED THE CRANKSHAFT SEPARATED AT A FATIGUE FRACTURE THROUGH THE NUMBER FOUR ROD JOURNAL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FATIGUE FRACTURE OF THE ENGINE CRANKSHAFT RESULTING IN LOSS OF POWER. FACTORS WERE THE PILOT'S EXCESSIVE DESCENT AND HIS LACK OF TOTAL EXPERIENCE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY,CRANKSHAFT - FATIGUE
2. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) DESCENT - EXCESSIVE - PILOT IN COMMAND
4. (F) LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Private	Age:	29, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	02/06/1992
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	109 hours (Total, all aircraft), 60 hours (Total, this make and model), 56 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HUGHES	Registration:	N58335
Model/Series:	269C 269C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	390762
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	07/22/1992, 100 Hour	Certified Max Gross Wt.:	2050 lbs
Time Since Last Inspection:	17 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2805 Hours	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	HIO-360-D1A
Registered Owner:	GREAT LAKES HELICOPTER SERVICE	Rated Power:	190 hp
Operator:	GREAT LAKES HELICOPTER SERVICE	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	RJNA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ARR, 707 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	1045 CDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	23° C
Precipitation and Obscuration:			
Departure Point:	SUGAR GROVE, IL (ARR)	Type of Flight Plan Filed:	None
Destination:	(ARR)	Type of Clearance:	None
Departure Time:	1050 CDT	Type of Airspace:	Class D; Class E

Airport Information

Airport:	AURORA MUNICIPAL (ARR)	Runway Surface Type:	N/A
Airport Elevation:	707 ft	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:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	J R VALLASTER	Report Date:	06/30/1993
Additional Participating Persons:	SCOTT R LANDORFF; WEST CHICAGO, IL JOSEPH EPPERSON; WASHINGTON, DC		
Publish Date:			
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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).