



National Transportation Safety Board Aviation Accident Final Report

Location:	Idaho Falls, ID	Accident Number:	SEA03LA023
Date & Time:	01/02/2003, 0900 MST	Registration:	N4759R
Aircraft:	Bell 47G	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Other Work Use

Analysis

The pilot reported that while in a cruise flight configuration, at 5,100 feet MSL and 80 MPH, the helicopter experienced a loss of engine power and the pilot initiated a forced landing to a nearby alfalfa field. During the landing, the main rotor blades made contact with the tail boom assembly, severing the top two tubes just aft of the last hangar bearing. Visual inspection of the helicopter's engine and associated components revealed no evidence of atypical wear or component failure. Following the visual inspection, the operator conducted an engine run. The engine was started and ran at various power settings for approximately 10 minutes. No power surges or anomalies were noted during test run.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: In-flight loss of engine power for undetermined reasons.

Findings

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

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

2. TERRAIN CONDITION - OPEN FIELD

Factual Information

On January 02, 2003, about 0900 mountain standard time, a turbine converted Bell 47G helicopter, N4759R, sustained substantial damage after a loss of engine power, autorotation, and hard landing eight miles southeast of Idaho Falls, Idaho. The helicopter is owned and operated by Heli-Wood of Tremonton, Utah, and was being operated as a visual flight rules (VFR) positioning flight in accordance with Title 14, CFR Part 91, when the accident occurred. The commercial pilot, the sole occupant of the helicopter, was not injured. Visual meteorological conditions prevailed and no flight plan was filed for the flight. The flight originated from an off-airport site approximately five miles east of Idaho Falls, approximately six minutes prior to the accident.

The pilot reported that while in a cruise flight configuration, at 5,100 feet MSL and 80 MPH, the helicopter experienced a loss of engine power and the pilot initiated a forced landing to a nearby alfalfa field. During the landing, the main rotor blades made contact with the tail boom assembly, severing the top two tubes just aft of the last hangar bearing.

Visual inspection of the helicopter's engine and associated components revealed no evidence of atypical wear or component failure. Inspection of the fuel system revealed that: the fuel inlet lines and vent lines were intact and no restrictions or leakage was noted. The fuel pump filter, airframe fuel filter, fuel control inlet screen and fuel nozzle inlet screen were intact and free of contaminants. Soot and carbon deposits were noted on the fuel nozzle tip. The Pc lines and associated components were intact and no cracks or evidence of leakage was noted.

Following the visual inspection, the operator conducted an engine run. The engine was started and ran at various power settings for approximately 10 minutes. No power surges or anomalies were noted during test run.

The operator and a representative from the Salt Lake City Flight Standards District Office conducted the post accident inspection and subsequent test run.

Pilot Information

Certificate:	Commercial	Age:	53, Male
Airplane Rating(s):		Seat Occupied:	Left
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 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/28/2002
Occupational Pilot:		Last Flight Review or Equivalent:	12/09/2002
Flight Time:	19000 hours (Total, all aircraft), 18900 hours (Total, this make and model), 18850 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N4759R
Model/Series:	47G	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	6728
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	11/03/2002, Annual	Certified Max Gross Wt.:	2950 lbs
Time Since Last Inspection:	60 Hours	Engines:	1 Turbo Shaft
Airframe Total Time:	11053 Hours as of last inspection	Engine Manufacturer:	Allison
ELT:	Installed, not activated	Engine Model/Series:	C20 B
Registered Owner:	Heli-Wood	Rated Power:	280 hp
Operator:	Heli-Wood	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	DYWA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KIDA, 4740 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	0855 MDT	Direction from Accident Site:	135°
Lowest Cloud Condition:		Visibility	9 Miles
Lowest Ceiling:	Broken / 4200 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.39 inches Hg	Temperature/Dew Point:	-6° C / -6° C
Precipitation and Obscuration:			
Departure Point:	IDAHO FALLS, ID (IDA)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	VFR
Departure Time:	0855 MST	Type of Airspace:	Class G

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
Total Injuries:	1 None	Latitude, Longitude:	43.450000, -111.933333

Administrative Information

Investigator In Charge (IIC): Dennis J Hogenson **Report Date:** 12/30/2003

Additional Participating Persons: Robert D Lesitsky; FAA-FSDO; Salt Lake City, UT

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/>.

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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](#).