



Aviation Investigation Final Report

Location: Oroville, Washington Accident Number: SEA05LA138

Date & Time: July 4, 2005, 17:30 Local Registration: N38926

Aircraft: Bell 47G-2A Aircraft Damage: Substantial

Defining Event: 1 None

Flight Conducted Under: Part 137: Agricultural

Analysis

The pilot said that he was spraying cherries when the engine suddenly stopped. He attempted an autorotation, but the main rotor impacted cherry trees. The helicopter's main bubble was shattered, and the skids and frame were bent. Postimpact examination of the aircraft, by a Federal Aviation Administration Inspector, revealed that the throttle cable's housing had broken, which permitted the engine's RPM to decay to the idle position.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the throttle cable housing, which permitted the engine's RPM to decay to the idle position. Contributing factors were the trees and the lack of suitable terrain for a forced landing.

Findings

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

Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) THROTTLE/POWER LEVER, CABLE - FAILURE

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. AUTOROTATION - ATTEMPTED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. (F) OBJECT - TREE(S)
4. (F) TERRAIN CONDITION - NONE SUITABLE

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Factual Information

On July 4, 2005, at 1730 Pacific daylight time, a Bell 47G-2A helicopter, N38926, was substantially damaged during a forced landing attempt, following a loss of engine power near Oroville, Washington. The commercial pilot, the sole occupant on board, was not injured. Waitsburg Helicopter Service was operating the flight under Title 14 CFR Part 137. Visual meteorological conditions prevailed for the aerial application flight. A flight plan had not been filed.

The pilot said that he was spraying cherries when the engine suddenly stopped. He attempted an auto rotation, but the main rotor impacted cherry trees. The helicopter's main bubble was shattered, and the skids and frame were bent.

Postimpact examination of the aircraft, by a Federal Aviation Administration Inspector, revealed that the throttle cable's housing had broken, which permitted the engine's RPM to decay to the idle position.

Pilot Information

Certificate:	Commercial	Age:	59,Male
Airplane Rating(s):	None	Seat Occupied:	Left
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 Without waivers/limitations	Last FAA Medical Exam:	June 1, 2002
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	10000 hours (Total, all aircraft), 10000 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N38926
Model/Series:	47G-2A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	N.A.H. 1957-1
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	April 1, 2005 Annual	Certified Max Gross Wt.:	2600 lbs
Time Since Last Inspection:	50 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	VO-435-A1F
Registered Owner:	Waitsburg Helicopter Service	Rated Power:	265 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	OMK,1305 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	160°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	32°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Oroville, WA (0S7)	Type of Flight Plan Filed:	None
Destination:	(0S7)	Type of Clearance:	None
Departure Time:	17:30 Local	Type of Airspace:	

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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:	48.958889,-119.411941

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Administrative Information

Investigator In Charge (IIC): Struhsaker, James

Additional Participating Philip L Vittetoe; FAA FSDO; Spokane, WA

Persons:

Original Publish Date: February 28, 2006

Last Revision Date:

Investigation Class: Class

Note:

Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=61867

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.

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