



Aviation Investigation Final Report

Location:	Monette, Arkansas	Accident Number:	DFW05CA231
Date & Time:	August 16, 2005, 15:16 Local	Registration:	N8494E
Aircraft:	Bell 47	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The 22,000-hour commercial pilot was in a two-foot hover when there was an indication of a hydraulic failure. Control of the helicopter became increasingly difficult and the pilot made an emergency landing. The helicopter landed hard, which resulted in the failure of a landing gear skid, main rotor blade strikes and a post-impact fire. Due to the post-impact fire, the reason for the reported hydraulic failure could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of control as result of a loss of hydraulic pressure for undetermined reasons.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: HOVER - IN GROUND EFFECT

Findings

1. (C) HYDRAULIC SYSTEM - FAILURE
2. (C) HYDRAULIC SYSTEM - UNDETERMINED

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

Factual Information

On August 16, 2005, approximately 1516 central daylight time, a single-engine Bell 47 helicopter, N8494E, was destroyed when it made an emergency landing near Monette, Arkansas. The commercial pilot, sole occupant of the helicopter, was not injured. The helicopter was owned and operated by Craft Flying Service, Inc., of Weiner, Arkansas. Visual meteorological conditions prevailed and no flight plan was filed for the local Code of Federal Regulations Part 137 agricultural flight.

The 22,000-hour pilot reported that the helicopter was in "hover mode" when there was an indication of a hydraulic failure. Controlling the helicopter became increasingly difficult and he attempted to make an emergency landing, which resulted in the failure of a landing gear skid. Subsequently, the main rotor blade collided with the ground. A post-impact fire ensued which destroyed the helicopter.

A Federal Aviation Administration (FAA) inspector, who responded to the accident site, stated that the "helicopter lifted off the ground 2 feet, settled back down," and then "caught on fire and burned."

Weather reported at the Jonesboro Municipal Airport (JBR) at 1453 reported wind from 220 degrees at 11 knots, visibility 10 statute miles, clear skies, temperature 90 degrees Fahrenheit, dew point 72 degrees Fahrenheit and a barometric pressure setting of 30.01 inches of Mercury.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	53, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2	Last FAA Medical Exam:	February 1, 2005
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	22000 hours (Total, all aircraft), 700 hours (Total, this make and model), 21500 hours (Pilot In Command, all aircraft), 400 hours (Last 90 days, all aircraft), 157 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N8494E
Model/Series:	47	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	2716
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2950 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	TVO-435-A1A
Registered Owner:	Craft Flying Service In.	Rated Power:	265 Horsepower
Operator:	Craft Flying Service Inc.	Operating Certificate(s) Held:	
Operator Does Business As:	Application	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	JBR	Distance from Accident Site:	
Observation Time:	14:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	32°C / 22°C
Precipitation and Obscuration:			
Departure Point:	Monette, AR	Type of Flight Plan Filed:	None
Destination:	Monette, AR	Type of Clearance:	None
Departure Time:	15:16 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	35.866664,-90.566665

Administrative Information

Investigator In Charge (IIC):	Yeager, Leah
Additional Participating Persons:	David Hall; LIT FSDO
Original Publish Date:	December 20, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=62422

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