



Aviation Investigation Final Report

Location:	Jeffersonville, Indiana	Accident Number:	CHI02LA008
Date & Time:	October 19, 2001, 16:30 Local	Registration:	N840WA
Aircraft:	Bell 47G-2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The helicopter was damaged when it impacted the ground and burned while hovering. The helicopter was piloted by a certified flight instructor (CFI) and dual student. The student was the holder of a private pilot certificate with a helicopter rating. In a written report, the dual student said that he raised the helicopter up to a hover and rotated 90 degrees with the helicopter facing downwind. He said that the helicopter seemed somewhat unstable in the gusty tailwind. He said that the helicopter came up in the front and then he felt a vibration in the tail. He said that the helicopter turned and the left skid impacted the ground and the helicopter rolled onto its left side. In a written report, the CFI said that, after a rudder turn when the helicopter was facing downwind, the student, "...very abruptly pitched the nose up reacting to the wind behind him. The abrupt pitch attitude allowed the tail to strike the ground." The CFI said that the aircraft was uncontrollable at that point and ultimately rolled onto its left side. A weather reporting station located about 9 miles and 157 degrees from the accident site recorded the winds as 10 knots gusting to 18 knots from 230 degrees at 1553. No anomalies were found with respect to the helicopter and none were reported.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The dual student pilot's failure to maintain control of the helicopter, his failure to maintain altitude/clearance from the terrain, and the inadequate supervision by the flight instructor. A factor was the gusty wind condition.

Findings

Occurrence #1: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID
Phase of Operation: HOVER

Findings

1. (F) WEATHER CONDITION - GUSTS
 2. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - DUAL STUDENT
 3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - DUAL STUDENT
 4. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: HOVER

Factual Information

On October 19, 2001, at 1630 eastern daylight time, a Bell 47G-2 helicopter, N840WA, piloted by a certified flight instructor (CFI) and dual student, was substantially damaged on impact with terrain and subsequent fire while hovering at the Clark County Airport, Jeffersonville, Indiana. The student was the holder of a private pilot certificate with a helicopter rating. The 14 CFR Part 91 flight was operating in visual meteorological conditions and was not on a flight plan. The CFI and student received minor injuries. The local flight originated at 1540.

In a written report, the dual student said that they were practicing rudder turns. He said that he raised up to a hover, rotated 90 degrees and then set the helicopter back down on the ground. He said he then raised up to a hover again and rotated 90 degrees with the helicopter facing downwind. He said that the helicopter seemed somewhat unstable in the gusty tailwind. He said that the helicopter came up in the front and then he felt a vibration in the tail. He said that the helicopter turned and the left skid impacted the ground and the helicopter rolled onto its left side.

In a written report, the CFI said that, after a rudder turn when the helicopter was facing downwind, the student, "...very abruptly pitched the nose up reacting to the wind behind him. The abrupt pitch attitude allowed the tail to strike the ground." The CFI said that the aircraft was uncontrollable at that point and ultimately rolled onto its left side.

A weather reporting station located about 9 miles and 157 degrees from the accident site recorded the winds as 10 knots gusting to 18 knots from 230 degrees at 1553.

A postaccident examination of the helicopter revealed no anomalies that could be associated with a pre-impact condition. The report filed by the CFI listed no mechanical malfunction.

Pilot Information

Certificate:	Private	Age:	58, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	December 12, 2000
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	60 hours (Total, all aircraft), 43 hours (Total, this make and model), 32 hours (Pilot In Command, all aircraft)		

Flight instructor Information

Certificate:	Airline transport	Age:	40, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 30, 2001
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 29, 2000
Flight Time:	3200 hours (Total, all aircraft), 160 hours (Total, this make and model), 3030 hours (Pilot In Command, all aircraft), 107 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N840WA
Model/Series:	47G-2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2008
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	July 25, 2001 100 hour	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	54 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	16755 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	VO-435
Registered Owner:	Whirl Away Helicopters, Inc.	Rated Power:	260 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:	LOU,546 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	157°
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Broken / 7000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 18 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	19°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	JEFFERSONVILLE, IN (JVY)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:40 Local	Type of Airspace:	Class G

Airport Information

Airport:	CLARK COUNTY JVV	Runway Surface Type:	Grass/turf
Airport Elevation:	474 ft msl	Runway Surface Condition:	Wet
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	38.39051,-85.750686(est)

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	James King; FAA-Indianapolis, Indiana FSDO; Indianapolis, IN
Original Publish Date:	June 4, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=53666

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