



# Aviation Investigation Final Report

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<b>Location:</b>	Wautoma, Wisconsin	<b>Accident Number:</b>	CHI08CA019
<b>Date &amp; Time:</b>	October 17, 2007, 10:15 Local	<b>Registration:</b>	N73223
<b>Aircraft:</b>	Bell 47G-2A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

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## Analysis

The helicopter impacted terrain during cruise flight. The pilot reported that the helicopter was established in cruise flight about 500 feet above ground level (agl). He was accompanied by a dog, which was restrained by a harness in the right seat. The pilot stated that a farmer waved as he flew by, and he banked the helicopter 30-degrees to the left and the right in response. He noted that this maneuver upset the dog. He subsequently transferred the cyclic from his right hand to his left hand, and restrained the collective by using the side of this leg, in order to free his right hand to reassure the dog. The pilot reported that during this time the helicopter entered a 135-degree right bank, and he seemed to become "weightless." He increased collective to load the main rotor and rolled left, recovering about 250 feet agl. He noted that the main rotor speed was "very low" and the helicopter was descending rapidly. About 50 feet agl he attempted to pitch up, but the aircraft did not respond. He "pulled all energy out of the rotor" and the helicopter impacted in a slight nose down attitude. The skids collapsed, the lower portion of the fuselage was damaged, and the main rotor blades struck the tail boom during the accident. The pilot stated that there were no failures or malfunctions associated with the aircraft prior to the accident. He noted that the distraction of having a dog in the helicopter and his transferring cyclic control to his left hand were contributing factors to the accident.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain control of the helicopter resulting from a distraction in the cockpit. A contributing factor was the distraction due to the dog in the cockpit.

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) DIVERTED ATTENTION - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

3. TERRAIN CONDITION - GROUND

## Factual Information

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### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider; Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Glider; Helicopter; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 1, 2007
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	October 1, 2005
<b>Flight Time:</b>	5934 hours (Total, all aircraft), 391 hours (Total, this make and model), 5637 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 34 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N73223
<b>Model/Series:</b>	47G-2A	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	2722
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	December 1, 2006 Annual	<b>Certified Max Gross Wt.:</b>	2850 lbs
<b>Time Since Last Inspection:</b>	330 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	13425 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	VO-435-AF
<b>Registered Owner:</b>	223 Leasing LLC	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>	Reabe Spraying Service	<b>Operating Certificate(s) Held:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PCZ	<b>Distance from Accident Site:</b>	10 Nautical Miles
<b>Observation Time:</b>	10:15 Local	<b>Direction from Accident Site:</b>	220°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 6000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.9 inches Hg	<b>Temperature/Dew Point:</b>	12°C / 9°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Plainfield, WI (8W12)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Waupaca, WI (PCZ)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:00 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Waupaca Muni PCZ	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sorensen, Timothy
<b>Additional Participating Persons:</b>	Robert Brandt; FAA-Milwaukee FSDO
<b>Original Publish Date:</b>	November 29, 2007
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=66952">https://data.nts.gov/Docket?ProjectID=66952</a>

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](#).