



# Aviation Investigation Final Report

<b>Location:</b>	Kenyon, Minnesota	<b>Accident Number:</b>	CHI08CA254
<b>Date &amp; Time:</b>	August 14, 2008, 10:45 Local	<b>Registration:</b>	N47AH
<b>Aircraft:</b>	Bell 47G-3B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The pilot reported he had flown the helicopter on several aerial application flights earlier in the day, and that the humidity had increased as the weather cleared. He stated that the initial takeoff was normal, but that when he was about 100 yards from the support truck, the rotor rpm began to decay, and the helicopter settled into a soybean field. The spray boom caught in the crop, and the helicopter pitched forward, which resulted in the main rotor blades contacting the ground. The aft section of the tail boom, including the tail rotor, separated from the helicopter. The pilot reported there was no mechanical malfunction/failure with the helicopter. He did report that he should have decreased his load due to the weather conditions.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight planning which resulted in the helicopter settling with power.

## Findings

<b>Personnel issues</b>	Performance calculations - Pilot
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## Factual Information

### History of Flight

<b>Takeoff</b>	Settling with power/vortex ring state
<b>Takeoff</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	47, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	January 1, 2008
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	12900 hours (Total, all aircraft), 3000 hours (Total, this make and model), 12665 hours (Pilot In Command, all aircraft), 184 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N47AH
<b>Model/Series:</b>	47G-3B	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	2645
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>		<b>Engine Model/Series:</b>	435A/F
<b>Registered Owner:</b>	Scotts Helicopter Service, Inc.	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	CUHG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	FBL	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	10:55 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	280°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.96 inches Hg	<b>Temperature/Dew Point:</b>	27°C / 18°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Kenyon, MN	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## 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>	
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	44.320835,-92.874725

## Administrative Information

**Investigator In Charge (IIC):** Sullivan, Pamela

**Additional Participating Persons:**

**Original Publish Date:** September 26, 2008

**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=68761>

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