



Aviation Investigation Final Report

Location:	Port Edwards, Wisconsin	Accident Number:	CHI08CA192
Date & Time:	July 11, 2008, 15:45 Local	Registration:	N73995
Aircraft:	Bell 47G-3B	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The commercial helicopter pilot reported that he was spraying a cranberry field. During a swath run, numerous bees entered the cockpit via the vent window. He was stung in the left arm twice, and as he tried to remove the bees, he inadvertently pitched the helicopter up. The helicopter climbed to about 35 feet above ground level and the rotor RPM decayed, and the airspeed went to about 30 MPH. The pilot attempted to return to level flight and added power, but he realized that the rotor RPM had decayed too much for a normal recovery. He reported that he "aggressively flared in an effort to reduce my groundspeed." During the flare, the tail boom struck the ground and then the main rotor struck the tail boom. The helicopter yawed right and impacted the terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot failed to maintain control of the helicopter when he inadvertently flared the helicopter and the rotor rpm decayed as a result of sustaining bee stings during an aerial application flight. Contributing to the accident included the bees and the low altitude.

Findings

Environmental issues	Animal(s)/bird(s) - Effect on personnel
Aircraft	Landing flare - Incorrect use/operation
Aircraft	Prop/rotor parameters - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial	Age:	64, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2	Last FAA Medical Exam:	June 1, 2008
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	12038 hours (Total, all aircraft), 7345 hours (Total, this make and model), 24 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N73995
Model/Series:	47G-3B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	2786
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	VO-435-AIF
Registered Owner:	995 Leasing LLC	Rated Power:	
Operator:	Reabe Spraying Service	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Port Edwards, WI	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:42 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	1 Minor	Latitude, Longitude:	44.348331,-89.990837

Administrative Information

Investigator In Charge (IIC): Silliman, James

Additional Participating Persons:

Original Publish Date: August 28, 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=68516>

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](#).