



# Aviation Investigation Final Report

<b>Location:</b>	Cleveland, Minnesota	<b>Accident Number:</b>	CHI03LA210
<b>Date &amp; Time:</b>	July 15, 2003, 07:30 Local	<b>Registration:</b>	N7925J
<b>Aircraft:</b>	Bell 47G-5	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The helicopter sustained substantial damage when it impacted a transmission wire and the terrain while performing aerial application maneuvers. The pilot reported he did not see the transmission wire until it impacted the windshield and deflected upwards towards the main rotorblades. The pilot stated the helicopter began to vibrate severely and descend. The helicopter impacted the terrain on its skids and rolled over onto its left side.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate visual lookout and low altitude flight when he failed to maintain altitude/clearance from the transmission wire. A factor contributing to the accident was the transmission wire.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: MANEUVERING - AERIAL APPLICATION

### Findings

1. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
2. (F) OBJECT - WIRE, TRANSMISSION
3. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
4. (F) LOW ALTITUDE FLIGHT/MANEUVER

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

## Factual Information

On July 15, 2003, about 0730 central daylight time, a Bell 47G-5 helicopter, N7925J, piloted by a commercial pilot, was destroyed on impact with a transmission wire and terrain near Cleveland, Minnesota. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 137 aerial application flight was not operating on a flight plan. The pilot sustained serious injuries. The flight departed from a private airstrip near Cleveland, Minnesota, at 0725.

The pilot reported he did not see the transmission wire until it impacted the cockpit windshield. The pilot stated the transmission wire deflected over the top of the cockpit and the helicopter started to "vibrate severely." He noted the helicopter started to descend and he "tried to pick [a] landing spot near [a] ditch in soft ground." The pilot reported he saw pieces of the helicopter that had been cut off by the main rotorblade "flying by the aircraft" prior to impact. The helicopter impacted on its skids and rolled onto its left side.

The pilot reported there were no mechanical malfunctions or failures prior to the impact with the wires.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 1, 2003
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 1, 2002
<b>Flight Time:</b>	12500 hours (Total, all aircraft), 9000 hours (Total, this make and model), 12500 hours (Pilot In Command, all aircraft), 85 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N7925J
<b>Model/Series:</b>	47G-5	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	25041
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	May 11, 2003 Annual	<b>Certified Max Gross Wt.:</b>	2950 lbs
<b>Time Since Last Inspection:</b>	30 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	6372.7 Hrs at time of accident	<b>Engine Manufacturer:</b>	Allison
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	T63A700
<b>Registered Owner:</b>	Scott's Helicopter Services	<b>Rated Power:</b>	318 Horsepower
<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>	Dawn
<b>Observation Facility, Elevation:</b>	MKT, 1020 ft msl	<b>Distance from Accident Site:</b>	7 Nautical Miles
<b>Observation Time:</b>	07:35 Local	<b>Direction from Accident Site:</b>	210°
<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>	8 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	310°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Cleveland, MN (PVT )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(PVT )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:25 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Destroyed
<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 Serious	<b>Latitude, Longitude:</b>	44.323612,-93.791664

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Malinowski, Edward
<b>Additional Participating Persons:</b>	Scot R Myers; FAA-Minneapolis FSDO; Minneapolis, MN
<b>Original Publish Date:</b>	December 30, 2003
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=57478">https://data.ntsb.gov/Docket?ProjectID=57478</a>

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