



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	New Castle, IN	<b>Accident Number:</b>	GAA18CA424
<b>Date &amp; Time:</b>	07/16/2018, 0900 EDT	<b>Registration:</b>	N39LR
<b>Aircraft:</b>	Bell 206	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

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## Analysis

According to the helicopter pilot, during an agricultural flight, he landed on the tender truck platform. The ground crewman connected a hose to fill the hopper, but he did not provide positive communication to the pilot regarding task completion. Consequently, "due to crew miscommunication," the pilot took off with the hose still connected to the helicopter. The tail rotor struck the hose, and the pilot lost tail rotor effectiveness. The helicopter entered an uncontrollable right spin, and the pilot lowered the collective. The helicopter descended, struck the ground, and then rolled over.

The helicopter sustained substantial damage to the tailboom, tail rotor system, main rotor system, and the skids.

The pilot reported that the accident could have been prevented by implementing a documented operating procedure to ensure positive communication between the ground crew and pilot.

The pilot reported that there were no mechanical malfunctions or failures with the helicopter that would have precluded normal operation.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to ensure that the fill hose was disconnected from the helicopter before takeoff, which resulted in the fill hose striking the tail rotor and the subsequent loss of tail rotor effectiveness. Contributing to the accident was inadequate communication between the ground crewman and the pilot.

## Findings

<b>Aircraft</b>	Prop/rotor parameters - Attain/maintain not possible (Cause)
<b>Personnel issues</b>	Lack of action - Pilot (Cause)
<b>Organizational issues</b>	Between individuals - Operator (Factor)

## Factual Information

### History of Flight

Prior to flight	Aircraft servicing event
Takeoff	Loss of control in flight
Uncontrolled descent	Collision with terr/obj (non-CFIT)
Post-impact	Roll over

### Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	71, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Front
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	06/05/2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	02/19/2018
Flight Time:	(Estimated) 20882 hours (Total, all aircraft), 810 hours (Total, this make and model), 20701 hours (Pilot In Command, all aircraft), 67 hours (Last 90 days, all aircraft), 67 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Bell	Registration:	N39LR
Model/Series:	206 L1	Aircraft Category:	Helicopter
Year of Manufacture:	1981	Amateur Built:	No
Airworthiness Certificate:	Restricted; Normal	Serial Number:	45654
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	06/01/2018, Annual	Certified Max Gross Wt.:	4150 lbs
Time Since Last Inspection:		Engines:	1 Turbo Shaft
Airframe Total Time:	8318 Hours	Engine Manufacturer:	Rolls Royce
ELT:	Not installed	Engine Model/Series:	259-C30P
Registered Owner:	Hornet LLC	Rated Power:	600 hp
Operator:	Blackstar LLC	Operating Certificate(s) Held:	Agricultural Aircraft (137)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KGEZ, 804 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	1253 UTC	Direction from Accident Site:	272°
Lowest Cloud Condition:		Visibility	7 Miles
Lowest Ceiling:	Broken / 700 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	25°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Castle, IN	Type of Flight Plan Filed:	None
Destination:	New Castle, IN	Type of Clearance:	None
Departure Time:	0900 EDT	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	39.564722, -85.235556 (est)

## Administrative Information

Investigator In Charge (IIC):	Michael A Hicks	Report Date:	06/05/2019
Additional Participating Persons:	Steve Stombaugh; FAA; Indianapolis, IN		
Publish Date:	06/05/2019		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	<a href="http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=97799">http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=97799</a>		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).