



# Aviation Investigation Final Report

<b>Location:</b>	Rikers Island, New York	<b>Accident Number:</b>	ERA16CA313
<b>Date &amp; Time:</b>	September 1, 2016, 13:00 Local	<b>Registration:</b>	N917PD
<b>Aircraft:</b>	BELL HELICOPTER TEXTRON CANADA 429	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Abrupt maneuver	<b>Injuries:</b>	6 None
<b>Flight Conducted Under:</b>	Public aircraft		

## Analysis

The pilot was landing the helicopter on a nose-up slope when he "noticed the helicopter started to tilt aft." As the pilot "immediately" increased collective pitch and applied forward cyclic to abort the landing, three of the four main rotor blades struck the wire strike protection system on the cabin roof, which resulted in substantial damage to the blades. Representatives from the helicopter manufacturer examined the helicopter, replaced the three damaged rotor blades, and then returned the helicopter to service. According to the pilot, there were no mechanical deficiencies with the helicopter that would have prevented normal operation.

## Probable Cause and Findings

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

The pilot's overcontrolling of the helicopter during an aborted slope landing from a hover, which resulted in a main rotor blade strike.

## Findings

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<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Main rotor blade system - Related operating info
<b>Environmental issues</b>	Sloped/uneven terrain - Effect on operation

## Factual Information

### History of Flight

<b>Maneuvering-hover</b>	Abrupt maneuver (Defining event)
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### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	April 16, 2016
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	March 4, 2016
<b>Flight Time:</b>	1015 hours (Total, all aircraft), 200 hours (Total, this make and model), 600 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

### Other flight crew Information

<b>Certificate:</b>	Private	<b>Age:</b>	42, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	August 2, 2016
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	April 21, 2016
<b>Flight Time:</b>	198 hours (Total, all aircraft), 0 hours (Total, this make and model), 100 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL HELICOPTER TEXTRON CANADA	<b>Registration:</b>	N917PD
<b>Model/Series:</b>	429 NO SERIES	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	2013	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	57148
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	August 19, 2016 100 hour	<b>Certified Max Gross Wt.:</b>	7000 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	2 Turbo shaft
<b>Airframe Total Time:</b>	1491.6 Hrs at time of accident	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>ELT:</b>		<b>Engine Model/Series:</b>	PW207D1
<b>Registered Owner:</b>	NEW YORK CITY POLICE DEPARTMENT	<b>Rated Power:</b>	550 Horsepower
<b>Operator:</b>	NEW YORK CITY POLICE DEPARTMENT	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLGA,31 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	12:51 Local	<b>Direction from Accident Site:</b>	188°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 3400 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	90°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.79 inches Hg	<b>Temperature/Dew Point:</b>	18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	New York, NY (JRB )	<b>Type of Flight Plan Filed:</b>	
<b>Destination:</b>	Rikers Island, NY	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	12:50 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	4 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	6 None	<b>Latitude, Longitude:</b>	40.786388,-73.878608(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rayner, Brian
<b>Additional Participating Persons:</b>	Victor Mevo; FAA/FSDO; Farmingdale, NY
<b>Original Publish Date:</b>	May 15, 2017
<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=94004">https://data.nts.gov/Docket?ProjectID=94004</a>

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