



Aviation Investigation Final Report

Location:	Ridgeway, Pennsylvania	Accident Number:	GAA18CA506
Date & Time:	August 22, 2018, 11:26 Local	Registration:	N89ZC
Aircraft:	Hughes 369	Aircraft Damage:	Substantial
Defining Event:	Controlled flight into terr/obj (CFIT)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

The pilot reported that, after a high reconnaissance of the area, he descended the helicopter to about 30 ft above power lines to inspect them while flying about 30 to 35 knots. While patrolling, he climbed over an identified crossing line and then initiated a descent. During the descent, the passenger spotted a previously unseen power line in their flightpath, so the pilot "pulled hard aft cyclic with right pedal," but the main rotor blades struck the power line. The helicopter's main rotor system began vibrating, but the pilot was able to land without further incident.

The helicopter sustained substantial damage to the main rotor blades.

The pilot reported that there were no preaccident mechanical failures or malfunctions 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 maintain clearance from power lines during an aerial observation flight.

Findings

Aircraft	Main rotor blade system - Damaged/degraded
Personnel issues	Identification/recognition - Pilot
Environmental issues	Wire - Effect on equipment
Personnel issues	Monitoring environment - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event
Maneuvering	Controlled flight into terr/obj (CFIT) (Defining event)
Maneuvering-low-alt flying	Off-field or emergency landing

Pilot Information

Certificate:	Commercial	Age:	41, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	November 1, 2017
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 25, 2017
Flight Time:	(Estimated) 2354 hours (Total, all aircraft), 594 hours (Total, this make and model), 2263 hours (Pilot In Command, all aircraft), 138 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N89ZC
Model/Series:	369 D	Aircraft Category:	Helicopter
Year of Manufacture:	1981	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1098D
Landing Gear Type:	High skid	Seats:	4
Date/Type of Last Inspection:	100 hour	Certified Max Gross Wt.:	3000 lbs
Time Since Last Inspection:		Engines:	1 Turbo shaft
Airframe Total Time:		Engine Manufacturer:	Rolls Royce
ELT:		Engine Model/Series:	250-C20B
Registered Owner:	Dah Aircraft Llc	Rated Power:	
Operator:	Rotor Blade LLC	Operating Certificate(s) Held:	Rotorcraft external load (133)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dawn
Observation Facility, Elevation:	KDUJ,1805 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	16:02 Local	Direction from Accident Site:	228°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 1800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.87 inches Hg	Temperature/Dew Point:	22°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	St Marys, PA (OYM)	Type of Flight Plan Filed:	None
Destination:	St Marys, PA (OYM)	Type of Clearance:	None
Departure Time:	12:15 Local	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.401111,-78.561386(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Laura Delewski; FAA; Allegheny , PA
Original Publish Date:	March 20, 2020
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=98147

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