



Aviation Investigation Final Report

Location: Lumberton, New Jersey Accident Number: ERA14CA216

Date & Time: May 1, 2014, 11:11 Local Registration: N119HF

Aircraft: AGUSTA AEROSPACE CORP AW119 MKII Aircraft Damage: Substantial

Defining Event: Miscellaneous/other **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

Analysis

According to the flight instructor, he gave the pilot under instruction (PUI) a simulated engine failure after takeoff when the helicopter reached approximately 50 knots. The PUI pulled the cyclic aft and increased collective. The flight instructor joined the PUI on the controls to prevent him from pulling too much collective and to lower the helicopter's nose to a level attitude. Both pilots were on the controls as the collective was increased to cushion the landing. The helicopter landed on the paved runway's centerline, and as it slid across what the pilots described as an uneven surface, it began to porpoise. The flight instructor lowered the collective to slow the slide and heard a noise, then the helicopter began vibrate and turned 220 degrees to the right before coming to a stop. During the slide, a main rotor blade cut off the tail boom. Neither pilot reported any preexisting mechanical anomalies 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 flightcrew's improper recovery from a simulated engine failure after takeoff. Contributing to the accident was the flight instructor's failure to clarify who had control of the helicopter.

Findings

Aircraft (general) - Not attained/maintained

Personnel issues Aircraft control - Flight crew

Personnel issues Lack of communication - Instructor/check pilot

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Factual Information

History of Flight

Landing-landing roll	Miscellaneous/other (Defining event)	

Flight instructor Information

Certificate:Commercial; Flight instructorAge:46Airplane Rating(s):Single-engine land; Multi-engine land; Multi-engine landSeat Occupied:LeftOther Aircraft Rating(s):HelicopterRestraint Used:Instrument Rating(s):Airplane; HelicopterSecond Pilot Present:YesInstructor Rating(s):Airplane multi-engine; Airplane single-engine; Helicopter; Instrument helicopterToxicology Performed:NoMedical Certification:Class 1 With waivers/limitationsLast FAA Medical Exam:September 30, 2013Occupational Pilot:YesLast Flight Review or Equivalent:September 30, 2013Flight Time:5319 hours (Total, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft), 27 hours (Last 30 days, all aircraft), 27 hours (Last 30 days, all aircraft), 28 hours (Last 24 hours, all aircraft)				
Other Aircraft Rating(s): Helicopter Restraint Used: Instrument Rating(s): Airplane; Helicopter Second Pilot Present: Yes Instructor Rating(s): Airplane multi-engine; Airplane single-engine; Helicopter; Instrument helicopter Medical Certification: Class 1 With waivers/limitations Last FAA Medical Exam: September 30, 2013 Occupational Pilot: Yes Last Flight Review or Equivalent: September 30, 2013 Flight Time: 5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Certificate:	Commercial; Flight instructor	Age:	46
Instrument Rating(s):Airplane; HelicopterSecond Pilot Present:YesInstructor Rating(s):Airplane multi-engine; Airplane single-engine; Helicopter; Instrument helicopterToxicology Performed:NoMedical Certification:Class 1 With waivers/limitationsLast FAA Medical Exam:September 30, 2013Occupational Pilot:YesLast Flight Review or Equivalent:September 30, 2013Flight Time:5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Airplane Rating(s):		Seat Occupied:	Left
Instructor Rating(s): Airplane multi-engine; Airplane single-engine; Helicopter; Instrument helicopter Medical Certification: Class 1 With waivers/limitations Last FAA Medical Exam: September 30, 2013 Occupational Pilot: Yes Last Flight Review or Equivalent: September 30, 2013 Flight Time: 5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Other Aircraft Rating(s):	Helicopter	Restraint Used:	
single-engine; Helicopter; Instrument helicopter Medical Certification: Class 1 With waivers/limitations Last FAA Medical Exam: September 30, 2013 Occupational Pilot: Yes Last Flight Review or Equivalent: September 30, 2013 Flight Time: 5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Occupational Pilot: Yes Last Flight Review or Equivalent: September 30, 2013 Flight Time: 5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Instructor Rating(s):	single-engine; Helicopter;	Toxicology Performed:	No
Flight Time: 5319 hours (Total, all aircraft), 553 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	September 30, 2013
Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),	Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 30, 2013
	Flight Time:	Command, all aircraft), 65 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft),		

Pilot Information

Certificate:	Foreign; Private	Age:	34
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 22, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 13, 2014
Flight Time:	8000 hours (Total, all aircraft), 6 hours (Total, this make and model), 75 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	AGUSTA AEROSPACE CORP	Registration:	N119HF
Model/Series:	AW119 MKII	Aircraft Category:	Helicopter
Year of Manufacture:	2008	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14719
Landing Gear Type:	N/A; Skid	Seats:	8
Date/Type of Last Inspection:	April 25, 2014 100 hour	Certified Max Gross Wt.:	
Time Since Last Inspection:	29 Hrs	Engines:	2 Turbo shaft
Airframe Total Time:	1511 Hrs at time of accident	Engine Manufacturer:	P&W CANADA
ELT:	C126 installed, not activated	Engine Model/Series:	PT6B-37A
Registered Owner:	AGUSTAWESTLAND PHILADELPHIA CORP	Rated Power:	900 Horsepower
Operator:	AGUSTAWESTLAND PHILADELPHIA CORP	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	VAY,53 ft msl	Distance from Accident Site:	
Observation Time:	10:54 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 9000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.81 inches Hg	Temperature/Dew Point:	19°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Philadelphia, PA (PNE)	Type of Flight Plan Filed:	
Destination:	Lumberton, NJ (VAY)	Type of Clearance:	None
Departure Time:	09:25 Local	Type of Airspace:	

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Airport Information

Airport:	SOUTH JERSEY RGNL VAY	Runway Surface Type:	Asphalt
Airport Elevation:	52 ft msl	Runway Surface Condition:	Dry;Rough
Runway Used:	26	IFR Approach:	None
Runway Length/Width:	3881 ft / 50 ft	VFR Approach/Landing:	Full stop;Simulated forced landing

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.938888,-74.840835(est)

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Administrative Information

Investigator In Charge (IIC):	Cox, Paul
Additional Participating Persons:	Robert Drapala; FAA/FSDO; Philadelphia, PA
Original Publish Date:	June 18, 2014
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89150

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.

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