
		NTSB ID: IAD05TA058		Aircraft Registration Number: N5252Y	
		Occurrence Date: 04/27/2005		Most Critical Injury: Minor	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Quantico		State VA	Zip Code 22135	Local Time 1800	Time Zone EDT
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility: 8			
Aircraft Information Summary					
Aircraft Manufacturer Hughes		Model/Series 369FF		Type of Aircraft Helicopter	
Revenue Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>*** Note: NTSB investigators may not have traveled in support of this investigation and used data provided by various sources to prepare this public aircraft accident report. ***</p> <p>HISTORY OF FLIGHT</p> <p>On April 27, 2005, at 1800 eastern daylight time, a Hughes 369FF helicopter, N5252Y, operated by the Federal Bureau of Investigation (FBI), was substantially damaged when it dragged a landing-gear skid and rolled over during a tactical training flight at the FBI Academy, Quantico, Virginia. The certificated commercial pilots received minor injuries. One passenger/jumper on the helicopter received minor injuries, and a recently deployed jumper on the ground was not injured. Visual meteorological conditions prevailed, and no flight plan was filed. The public use flight which departed an Academy helipad, about 1755, was conducted under 14 CFR Part 91.</p> <p>According to conversations with a Supervisory Special Agent, an FBI preliminary report, and an interview summary from the pilot, the purpose of the flight was to perform "fast rope" insertions by helicopter to the roof of a one-story "building." The building was a training apparatus, erected in a designated training area, with a second-story facade attached.</p> <p>The helicopter approached the building from the front, with two jumpers posted on skid-mounted pods on either side of the aircraft. The helicopter came to a hover with the fuselage over the building, and the tailboom suspended over the grassy area in front of the building. The helicopter landing-gear skids were at the same approximate altitude as the top edge of the second-story facade.</p> <p>The jumper on the left pod deployed to the rooftop by fast rope without difficulty. The flight crew then decided to reposition the helicopter over the building prior to deploying the jumper from the right pod.</p> <p>The helicopter hovered to the right, the pilot in the left seat felt a "bump" in the airframe, and announced to the copilot that he "might be rubbing a skid." The pilot adjusted the flight controls to free the skid, and to maneuver a safe distance from the building facade.</p> <p>The pilot determined the helicopter was free of the obstacle, and adjusted the collective pitch control to raise the helicopter above the top of the facade. Almost immediately, the nose of the helicopter pitched up "uncontrollably," and the pilot countered with full forward cyclic.</p> <p>The nose continued to pitch up, and the pilot maneuvered the helicopter to the right to avoid the jumper on the apparatus below. The helicopter rolled right, contacted trees next to the building, and then descended through the trees where it struck the ground in a nose-down attitude.</p>					
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 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: IAD05TA058
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	Occurrence Type: Accident

Narrative (Continued)

Examination of the damaged building revealed paint transfers consistent with the exterior of the helicopter skids and cross tubes.

PILOT INFORMATION

The pilot held a commercial pilot certificate with ratings for airplane single-engine land, rotorcraft helicopter, and instrument airplane and helicopter. He reported 9,000 total hours of flight experience, with 3,000 hours in make and model of the accident aircraft. His most recent second-class medical certificate was issued on December 2, 2004.

The copilot held a commercial pilot certificate with ratings for rotorcraft helicopter and instrument helicopter. He reported 2,200 total hours of flight experience, with 400 hours in make and model. His most recent second-class medical certificate was issued on April 12, 2004.

AIRCRAFT INFORMATION

The helicopter was a Hughes 369 FF. The helicopter had accrued 2,132 hours of total flight time. The most recent annual inspection was completed on April 8, 2005, and the helicopter accrued 44 hours since that date.

After the accident, the pilot reported that there were no deficiencies with the performance and handling of the helicopter.

METEOROLOGICAL INFORMATION

At 1755, the weather reported at the Quantico Marine Corps Airfield, Quantico, Virginia, included scattered clouds at 3,000 feet and a broken layer at 9,000 feet. The winds were from 320 degrees at 10 knots. The temperature was 69 degrees Fahrenheit, and the dewpoint was 36 degrees Fahrenheit.

WRECKAGE INFORMATION


The helicopter was examined and photographed at the site by a Special Agent of the FBI. The agent's unit of assignment was independent of the one involved in the accident. Examination revealed that all major components of the helicopter were accounted for at the scene. The helicopter came to rest inverted, about 30 feet southeast of the training apparatus facade. Several angularly cut trees, saplings, and branches surrounded the helicopter. Pieces of angularly cut wood were scattered about the site.


The main rotor blades were separated, and fractured near the hub. The blade fragments were scattered about the crash site. One rotor blade, largely intact, came to rest 290 feet southwest of the main wreckage.

The tailboom was separated from the fuselage, and came to rest about 25 feet southeast of the main wreckage.

ADDITIONAL INFORMATION

The Bureau convened an Aviation Safety Council Meeting on August 18, 2005. The elements of the accident were discussed, and operational changes and procedural improvements were adopted at the conclusion of the meeting.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: IAD05TA058			
		Occurrence Date: 04/27/2005			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Quantico Marine Corps Airfield	NYG	11 Ft. MSL	NA		
Runway Surface Type: Grass/turf					
Runway Surface Condition: Dry					
Approach/Arrival Flown: NONE					
VFR Approach/Landing: Valley/Terrain Following					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Hughes		369FF		0023F	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Skid					
Amateur Built Acft? No	Number of Seats: 4	Certified Max Gross Wt.	3100 LBS	Number of Engines: 1	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Shaft	Rolls-Royce	CAE-900027	447 HP		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Annual	04/2005	44 Hours	2132 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?/Type Yes /	ELT Operated? Yes	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
FBI		1935 Pennsylvania Ave			
		City	State	Zip Code	
		Washington	DC	20535	
Operator of Aircraft		Street Address			
FBI		1935 Pennsylvania Ave			
		City	State	Zip Code	
		Washington	DC	20535	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Public Use					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: IAD05TA058
	Occurrence Date: 04/27/2005
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 47
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Sex: M	Seat Occupied: Left	Occupational Pilot?	Certificate Number: On File
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Certificate(s): Commercial

Airplane Rating(s): Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Airplane; Helicopter

Instructor Rating(s): Helicopter; Instrument Helicopter

Current Biennial Flight Review? 01/2005

Medical Cert.: Class 2	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 12/2004
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	9000	3000	3000		1000	400		6000		
Pilot In Command(PIC)										
Instructor										
Instruction Received										
Last 90 Days	41									
Last 30 Days	35									
Last 24 Hours	1									

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: None

Departure Point QUANTICO	State VA	Airport Identifier NYG	Departure Time 1755	Time Zone EDT
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Destination Local Flight	State	Airport Identifier NYG	
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Type of Clearance: None

Type of Airspace: Class G

Weather Information

Source of Wx Information:
National Weather Service

 National Transportation Safety Board FACTUAL REPORT AVIATION	NTSB ID: IAD05TA058
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	Occurrence Type: Accident

Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
NYG	1755	EDT	11 Ft. MSL	8 NM	289 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			3000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		9000 Ft. AGL	Visibility: 10	SM	Altimeter: 29.72 "Hg
Temperature: 21 °C	Dew Point: 2 °C	Weather Conditions at Accident Site: Visual Conditions			
Wind Direction: 320	Wind Speed: 10	Wind Gusts:			
Visibility (RVR): Ft.	Visibility (RVV): SM				
Precip and/or Obscuration: No Obscuration; No Precipitation					

Accident Information

Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None
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- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot			1		1
Second Pilot			1		1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers			1		1
- TOTAL ABOARD -			3		3
Other Ground					
- GRAND TOTAL -			3		3

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: IAD05TA058

Occurrence Date: 04/27/2005

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Brian C. Rayner

Additional Persons Participating in This Accident/Incident Investigation:

Robert Drake
FAA AAI-100
Washington, DC

Robert Fabie
FBI
Quantico, VA