



**National Transportation
Safety Board**

Memorandum

Date: January 18, 2018
To: John DeLisi, Director, Office of Aviation Safety
Through: Timothy LeBaron, Deputy Director, Office of Aviation Safety
From: Dennis Diaz, Chief – Eastern Region, Office of Aviation Safety
Subject: Duplicate Aircraft Accident Reports (ERA17CA099/GAA17CA137)

It has come to my attention that due to an administrative oversight, two accident reports were issued for a single aircraft accident involving N7518G, a Robinson Helicopter R22, which occurred in Fallston, Maryland on February 4, 2017. The first report, ERA17CA099, was published on April 10, 2017, while the second, GAA17CA137, was published on September 7, 2017.

To rectify the situation, I recommend that the second report, GAA17CA137, be removed from the aviation accident database, and that a copy of the deleted report be placed in the public docket for ERA17CA099 for posterity. We believe that ERA17CA099 is written more clearly and better represents the information obtained in the accident investigation.

With your approval, the Office of Aviation Safety will proceed accordingly.

Dennis Diaz
Chief – Eastern Region
National Transportation Safety Board
Office of Aviation Safety

Attachment: Copy of ERA17CA099 Final Report
Copy of GAA17CA137 Final Report

Approved!





National Transportation Safety Board Aviation Accident Final Report

Location:	Fallston, MD	Accident Number:	ERA17CA099
Date & Time:	02/04/2017, 1430 EST	Registration:	N7518G
Aircraft:	ROBINSON HELICOPTER R22	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The student pilot, who held a commercial fixed-wing pilot certificate, was performing hovering flight during his first helicopter lesson when the helicopter "suddenly jerked backwards." The helicopter's tail rotor gearbox and a portion of the tail rotor departed the helicopter, and the flight instructor landed the helicopter upright with no injuries to the two occupants.

According to the flight instructor, he monitored the cyclic, collective, and tail rotor controls while explaining hovering flight and surrendered each control to the student pilot one at a time until the student pilot was fully controlling the helicopter. As the helicopter transitioned backward and began a "spin to the left," he requested and took control of the helicopter, but the student pilot did not surrender the controls, and the flight instructor could not overpower the student pilot's inputs before the tail rotor collided with terrain. The flight instructor further stated that there were no mechanical deficiencies 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 student pilot's failure to relinquish the flight controls to the flight instructor, which resulted in a collision with terrain.

Findings

Aircraft	Performance/control parameters - Attain/maintain not possible (Cause)
Personnel issues	Aircraft control - Student/instructed pilot (Cause) Lack of action - Student/instructed pilot (Cause)

Factual Information

History of Flight

Maneuvering-hover	Loss of control in flight (Defining event) Collision with terr/obj (non-CFIT)
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Pilot Information

Certificate:	Commercial; Private	Age:	38, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Lap Only
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	02/24/2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	312 hours (Total, all aircraft), 1 hours (Total, this make and model), 223 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Flight Instructor Information

Certificate:	Flight Instructor; Commercial; Private	Age:	27, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap Only
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	03/11/2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	308 hours (Total, all aircraft), 247 hours (Pilot In Command, all aircraft), 72 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ROBINSON HELICOPTER	Registration:	N7518G
Model/Series:	R22 Beta	Aircraft Category:	Helicopter
Year of Manufacture:	2006	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	4005
Landing Gear Type:	Skid;	Seats:	2
Date/Type of Last Inspection:	12/22/2016, 100 Hour	Certified Max Gross Wt.:	1369 lbs
Time Since Last Inspection:	55 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3343 Hours as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-360 SERIES
Registered Owner:	MIDDLE RIVER AVIATION LLC	Rated Power:	145 hp
Operator:	MIDDLE RIVER AVIATION LLC	Operating Certificate(s) Held:	Pilot School (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KMTN, 21 ft msl	Observation Time:	2045 UTC
Distance from Accident Site:	10 Nautical Miles	Direction from Accident Site:	183°
Lowest Cloud Condition:	Few / 20000 ft agl	Temperature/Dew Point:	3° C / -14° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, 260°	Visibility (RVR):	
Altimeter Setting:	30.39 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Middle River, MD (MTN)	Type of Flight Plan Filed:	None
Destination:	Fallston, MD (W42)	Type of Clearance:	None
Departure Time:	1230 EST	Type of Airspace:	Class G

Airport Information

Airport:	FALLSTON (W42)	Runway Surface Type:	Asphalt
Airport Elevation:	460 ft	Runway Surface Condition:	Dry
Runway Used:	04	IFR Approach:	None
Runway Length/Width:	2200 ft / 50 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.507778, -76.406667 (est)

Administrative Information

Investigator In Charge (IIC):	Brian C Rayner	Adopted Date:	04/10/2017
Additional Participating Persons:	Dave Gary; FAA/FSDO; Baltimore, MD		
Publish Date:	04/10/2017		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94685		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.



National Transportation Safety Board Aviation Accident Final Report

Location:	Fallston, MD	Accident Number:	GAA17CA137
Date & Time:	02/05/2017, 1330 EST	Registration:	N7518G
Aircraft:	ROBINSON HELICOPTER R22	Aircraft Damage:	Substantial
Defining Event:	Abrupt maneuver	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The flight instructor in the skid-landing-gear-equipped helicopter reported that he was providing hovering instruction during the student's first helicopter lesson. The student was manipulating all flight controls with the instructor's "guided assistance." The helicopter began drifting aft, and the instructor told the student to "ease up on the controls." The helicopter entered an immediate spin to the left, and the student "froze up on the flight controls." The instructor's counter-control inputs to gain control of the helicopter were ineffective, and the instructor rolled off the throttle. The helicopter descended, and the left skid and empennage struck the ground hard and sustained substantial damage.

The flight instructor reported that there were no preaccident 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 flight instructor's inability to maintain helicopter control while hovering because the student pilot froze on the flight controls, which resulted in a hard landing.

Findings

Aircraft	Performance/control parameters - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Instructor/check pilot (Cause) Cognitive overload - Student/instructed pilot (Cause) Common phraseology - Instructor/check pilot

Factual Information

History of Flight

Maneuvering-hover	Collision with terr/obj (non-CFIT) Abrupt maneuver (Defining event)
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Flight Instructor Information

Certificate:	Flight Instructor	Age:	27, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	03/11/2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	10/29/2016
Flight Time:	(Estimated) 308 hours (Total, all aircraft), 308 hours (Total, this make and model), 247 hours (Pilot In Command, all aircraft), 72 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Student Pilot Information

Certificate:	Commercial	Age:	38, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	02/24/2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	0 hours (Total, all aircraft), 0.8 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	ROBINSON HELICOPTER	Registration:	N7518G
Model/Series:	R22 BETA	Aircraft Category:	Helicopter
Year of Manufacture:	2006	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	4005
Landing Gear Type:	Skid;	Seats:	2
Date/Type of Last Inspection:	12/22/2016, 100 Hour	Certified Max Gross Wt.:	1370 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3343 Hours as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-360-J2A
Registered Owner:	On file	Rated Power:	145 hp
Operator:	On file	Operating Certificate(s) Held:	Pilot School (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KMTN, 21 ft msl	Observation Time:	1745 UTC
Distance from Accident Site:	10 Nautical Miles	Direction from Accident Site:	181°
Lowest Cloud Condition:		Temperature/Dew Point:	7° C / -8° C
Lowest Ceiling:	Overcast / 6000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	5 knots, 230°	Visibility (RVR):	
Altimeter Setting:	29.97 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BALTIMORE, MD (MTN)	Type of Flight Plan Filed:	None
Destination:	Fallston, MD (W42)	Type of Clearance:	VFR
Departure Time:	EST	Type of Airspace:	Class G

Airport Information

Airport:	FALLSTON (W42)	Runway Surface Type:	Grass/turf
Airport Elevation:	460 ft	Runway Surface Condition:	Dry
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.501389, -76.411389 (est)

Administrative Information

Investigator In Charge (IIC):	Michael A Hicks	Adopted Date:	09/07/2017
Additional Participating Persons:	Kenneth Crowder; FAA; Baltimore, MD		
Publish Date:	09/07/2017		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94713		

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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.