



# National Transportation Safety Board Aviation Accident Preliminary Report

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<b>Location:</b>	Venice, FL	<b>Accident Number:</b>	ERA16LA055
<b>Date &amp; Time:</b>	12/01/2015, 1530 EST	<b>Registration:</b>	N8560M
<b>Aircraft:</b>	ROBINSON R22	<b>Injuries:</b>	1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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On December 1, 2015, about 1530 eastern standard time, a Robinson R22, N8560M, made a forced landing to a field near Venice, Florida. The flight instructor sustained minor injuries and the private pilot was seriously injured. The helicopter landed on soft terrain and sustained damage to the skids, fuselage, tail boom, and windshield. The helicopter was registered to N8560M, LLC, and operated by Helicopter Academy under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. Visual meteorological conditions existed near the accident site at the time of the accident and no flight plan was filed. The flight originated from the Venice Municipal Airport, Venice, Florida, about 1430.

The flight instructor reported that he was preparing the pilot for her commercial rotorcraft-helicopter check-ride. They had practiced several maneuvers before heading back to the airport. While en route to the airport, the instructor was asking the pilot where she would land in the event of an engine failure when he noticed that the manifold pressure had dropped below 18 inches of mercury, necessitating activation of the carburetor heat. The instructor did not recall if he told the pilot to turn the carburetor heat on, but remembered looking back outside because they were discussing forced landing areas. The instructor said the pilot then accidentally "pulled the mixture" versus the carburetor heat and "shut off the engine." He immediately took control of the helicopter, entered an autorotation, and landed "hard." The windshield popped out and the helicopter rocked back and forth before it leveled out. The instructor said the pilot then exited the helicopter and ran toward the front. The main rotor blades were still moving and struck the pilot's head. The instructor said he never saw the pilot actually pull the mixture in flight. He assumed that she did, because when he went to shut the engine down, the mixture control's safety gate was on the floor and the mixture control was pulled out.

The pilot stated that while returning to Venice, the instructor asked her where she would land if they had an engine failure. She said the beach, but the instructor pointed out a more suitable spot. The instructor then called out "3-2-1" and rolled off the throttle to simulate an engine failure. The pilot said that both of them were on the controls and the autorotation looked good until they were about 250 feet from the landing spot. The pilot could not explain why the helicopter landed hard. Once on the ground, the pilot said she "pulled the mixture" while the instructor had his hand on the rotor-brake. She then exited the helicopter to go retrieve the

windshield that had popped off during landing. While standing out in front of the helicopter, one of the main rotor blades struck her on the left side of the head, fracturing her orbital bone.

Both the instructor and pilot reported there were no mechanical deficiencies that would have precluded normal operation of the helicopter or engine.

### Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	ROBINSON	<b>Registration:</b>	N8560M
<b>Model/Series:</b>	R22 UNDESIGNAT	<b>Aircraft Category:</b>	Helicopter
<b>Amateur Built:</b>	No		
<b>Operator:</b>	Helicopter Academy	<b>Air Carrier Operating Certificate:</b>	None

### Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	VNC, 16 ft msl	<b>Observation Time:</b>	1535 EST
<b>Lowest Cloud Condition:</b>	Clear	<b>Conditions at Accident Site:</b>	Visual Conditions
<b>Lowest Ceiling:</b>		<b>Temperature/Dew Point:</b>	26° C / 22° C
<b>Wind Speed/Gusts, Direction:</b>	6 knots, 310°	<b>Visibility</b>	10 Miles
<b>Altimeter Setting:</b>	29.97 inches Hg	<b>Type of Flight Plan Filed:</b>	None
<b>Departure Point:</b>	Venice, FL (VNC)	<b>Destination:</b>	Venice, FL (VNC)

### Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 Minor		

### Administrative Information

<b>Investigator In Charge (IIC):</b>	Leah D Yeager
<b>Additional Participating Persons:</b>	Robert Blake; FAA/FSDO; Tampa, FL
<b>Note:</b>	The NTSB did not travel to the scene of this accident.